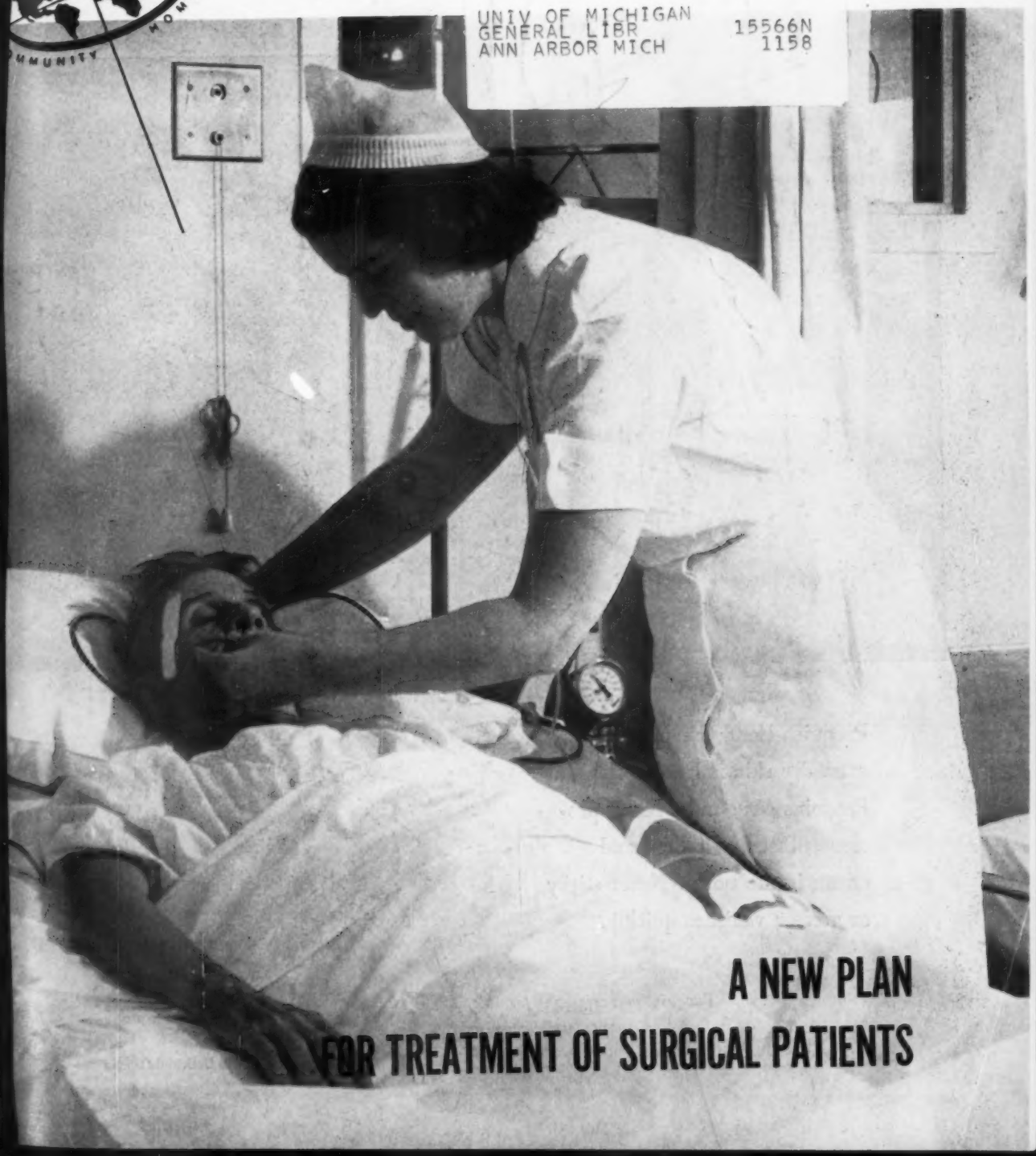
Nursing World

MARCH 1957

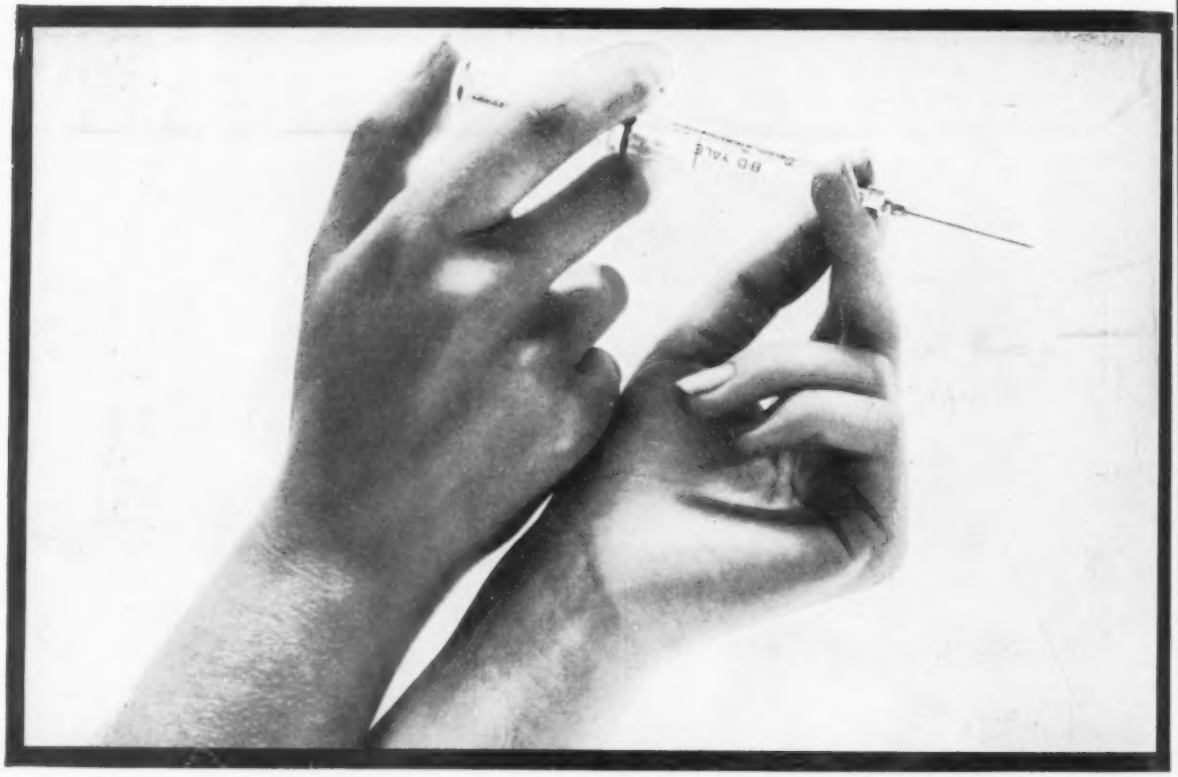
UNIV OF MICHIGAN
GENERAL LIBR 15566N
ANN ARBOR MICH 1158



A NEW PLAN FOR TREATMENT OF SURGICAL PATIENTS

Your hands need the extra protection of PACQUINS HAND CREAM

...made especially for you!



Pacquins Hand Cream for extra-dry skin is lanolin-rich. Pacquins gives more hands protection than any other hand cream in the world. Never sticky or greasy; vanishes quickly.

Pacquins was originally formulated for professional use only.

On sale at all drug counters in U. S. and Canada

Brownell—
PRACTICAL NURSING

Clearly tells you how to—

assist the doctor in examining the patient,
keep the patient comfortable,
bathe the patient safely,
minister all types of treatment,
care for the newborn,
give all types of medicine,
divert the interest of the aged,
prevent and dress pressure sores.

By KATHRYN OSMOND BROWNELL, R.N., B.S., Member of Committee, Brooklyn Young Women's Christian Association School of Practical Nursing, Brooklyn. 512 pages, illustrated. $4.25.
Fourth Edition!

This book describes all the duties of the practical nurse and explains exactly how to do each. Important points to remember are outlined. Medical and nursing terms are defined. The book is complete with descriptions of anatomy, physiology and common diseases plus suggestions about your own health.

Cook and Davidson—
Mathematical Guide to Dosage and Solutions

Does arithmetic give you any trouble? Solve your problems easily with help from this unique new manual of methods and practice problems. The clever illustrations give you quick know-how. You will always find this little guide a quick refresher for fractions, decimals, roman numerals, per cents, ratios, proportions, apothecaries' and metric systems.

By ALICE C. COOK, B.S., R.N. and KATHERINE E. DAVIDSON, B.S., R.N., Instructors, Delaware Hospital, School of Nursing, Wilmington, Delaware. 190 pages, illustrated. $2.75.
New!

Mitchell's Pediatrics and Pediatric Nursing
by Lyon and Wallinger

If you ever care for children here is a complete guide. This book portrays the physical, mental and social development of a normal child . . . gives complete nursing techniques . . . describes helpful information about symptoms and treatment of pediatric diseases. You can learn how to ease the child's anguish of a stay in the hospital and thus speed his convalescence.

By ROBERT A. LYON, M.D., Associate Professor of Pediatrics, University of Cincinnati; Assistant Medical Director, Cincinnati Children's Hospital; and ELGIE M. WALLINGER, R.N., Director of Nursing, Children's Hospital, Columbus, Ohio. 547 pages, illustrated. $4.50.
Fourth Edition!

— — — — — — — — — — easy to order - mail coupon today —

W. B. SAUNDERS COMPANY West Washington Square, Philadelphia 5, Pa.

Send me the following books: ☐ Remittance Enclosed ☐ C.O.D.

☐ **Brownell's Practical Nursing $4.25**

☐ **Mitchell's Pediatric Nursing by Lyon and Wallinger $4.50**

☐ **Cook and Davidson's Mathematical Guide to Dosage and Solutions $2.75**

NW 3-57

Name .....

Address .....

GENERAL ADVISORY BOARD

NURSING EDUCATION

Lulu Wolf Hassenplug, R.N., *Dean, University of California School of Nursing.*

Henrietta Loughran, R.N., *Dean, University of Colorado School of Nursing.*

Elsie Palmer, R.N., *Ass't Director, Nursing Education and Nursing Service, City of New York, Dep't of Hospitals.*

NURSING SERVICE

Catherine M. Loeffler, R.N., *Assoc. Director, Johns Hopkins Hospital School of Nursing.*

Harriet M. Smith, R.N., *Ass't Professor, University of Washington School of Nursing.*

CLINICAL NURSING

Trude Aufhauser, R.N., *Public Health Nurse, Nassau County Department of Health, Garden City, N. Y.*

Kathleen Black, R.N., *Consultant Psychiatric Nursing, NLN, New York City.*

Margaret Blee, R.N., *Assoc. Professor Public Health, University of North Carolina.*

Lillian Sholtis Brunner, R.N., *Consultant in Medical and Surgical Nursing, Bryn Mawr Hospital, Pa.*

Annie Laurie Crawford, R.N., *Psychiatric Nursing Consultant, Florida State Board of Health, Jacksonville, Florida.*

Lena Dixon Dietz, R.N., *Clinical Instructor, Medical and Surgical Nursing, Michael Reese Hospital, Chicago.*

Anna V. Matz, R.N., *Public Health Nursing Consultant, New York City Department of Health.*

Theresa G. Muller, R.N., *Educational Director of Graduate Studies in Psychiatric Nursing, Univ. of Nebraska.*

Mary Mesercher, R.N., *Exec. Secretary, 3rd District, Minnesota Nurses Association.*

Donald E. Porter, R.N., *Program Director, California Tuberculosis Association.*

Dorothy W. Rostetter, R.N., *Vice-Chairman Private Duty Section, District No. 13, N. Y.*

INDUSTRIAL NURSING ADVISORS

Catherine R. Dempsey, R.N., *Head Nurse Medical Department, Simplex Wire & Cable Co., Cambridge, Massachusetts.*

Mildred Dunn Thomas, R.N., *Supervisor, Nursing Service, Merck & Co., Rahway, N. J.*

Hazel H. Leedke, R.N., *Supervising Nurse, Thilmany Pulp and Paper Corp., Kaukauna, Wis.*

Joanna M. Johnson, R.N., *Director, Green Bay Visiting Nurse Ass'n., Green Bay, Wisconsin.*

Marion S. Mayne, R.N., *Consultant, Ind. Hygiene Division, Los Angeles County Health Department, California.*

O. F. Shook, M.D., *Medical Director, Owens Illinois Glass Co., Toledo, Ohio.*

Mildred I. Walker, R.N., *Sr. Consultant, Ind. Health Div., Dept. of National Health, Canada.*

PRACTICAL NURSING ADVISORS

Elisabeth C. Phillips, R.N., *Exec. Director, Visiting Nurses' Ass'n., Rochester, N. Y., Chairman.*

Margaret Baird, *President, NFLPN.*

Edwina G. Barnett, *Field Worker, Colored Nurses Ass'n. of Virginia.*

Fern A. Goulding, R.N., *Director, Indianapolis, Ind. School of Practical Nursing.*

Helen Herrmann, *President, Michigan Practical Nurses' Association.*

Hugo V. Hullerman, M.D., *Director, Hospital Services, United Hospital Fund of N. Y.*

Madeline G. Kalin, *Legislative Chairman and Third Vice President of the NFLPN.*

Lula A. Snow, L.A., *Secretary, Licensed Practical Nurses Association of Massachusetts.*

Jean E. Sutherland, R.N., *Nursing Consultant, Counseling and Placement, New York State Employment Service.*

Ella M. Thompon, R.N., *Assoc. Exec. Dir., National Ass'n. for Practical Nurse Education.*

Amy Viglione, R.N., *Assoc. Dir., Nursing Service, Kellogg Foundation, Battle Creek, Michigan.*

Arthur B. Wrigley, *State Supervisor, Trade and Ind. Education, Dept. of Education, N. J.*

INDUSTRIAL NURSING EDITORS

Louise Candland, R.N.
Erica J. Koehler, R.N.

PRACTICAL NURSING EDITORS

Elsie Bandman, R.N., *Consultant*
Lillian E. Kuster, LPN, *Associate Editor*

EDITORIAL STAFF

Joseph Kruger, Publisher
Virginia A. Turner, R.N., Editor
Clairece Black, Assoc. Editor
Arnold Krupin, Production Director
Paul M. Cheda, Art Director
Joseph Dardine, Art Editor

BUSINESS STAFF

Joseph Kruger, Pres.
Henry Scharf, Exec. Vice Pres.
John H. Ferguson IV, Vice Pres.
Milton S. DuBroff, Secy.
Ruth Hough, Circulation Mgr.
Saul Fenichel, Business Mgr.

ADVERTISING MANAGER—41 East 42nd Street, New York 17, N. Y.
Telephone: OXford 7-3785

VAC

Formerly Trained Nurse & Hospital Review, first published in 1888

Nursing World

An independent Journal published for all who are engaged in the practice of nursing

Vol. 131 **MARCH, 1957** **No. 3**

CONTENTS

NURSING EDUCATION and NURSING SERVICE

A Decade of Inservice Education
Lillian V. Salsman, R.N., and Cecelia T. Abrahamer, R.N. ... 7

That Universal Ailment, Diabetes ..... *Marguerite M. Martin, R.N.* ... 24

CLINICAL NURSING

A Special Care Ward for Surgical Patients
J. Murray Beardsley, M.D., and Florence F. Carvisiglia, R.N. ... 11

GENERAL INTEREST

The Role of the Nurse in Recreational Therapy
Sandy F. Mannino, R.N. ... 18

DEPARTMENTS

In This Issue ... 5

NURSING WORLD Reports ... 6

Advances and Trends in Drug Therapy ..... *Joan Sarvajic, R.N.* ... 17

The Book Shelf ..... *Anna V. Matz, R.N.* ... 21

Let's Talk It Over ..... *Theresa G. Muller, R.N.* ... 22

NURSING WORLD is published monthly by NURSING WORLD Publications, Inc. Publication Office, 3110 Elm Ave., Baltimore 11, Md. Editorial Offices, 41 East 42nd St., New York 17, N. Y. Telephone: OXford 7-3785. Business and Circulation Office, 724 Ninth St., N. W. Washington 1, D. C. Telephone: MEtropolitan 8-5243. Entered as second class matter at the Post Office, Baltimore, Md. under the act of March 3, 1879. Subscription price: 35 cents per copy, $3.50 per year in the United States and Canada; $6.00 for two years; $9.00 for three years; Pan American Countries, $1.00 per year additional. Subscription rates for all other countries, $1.50 per year additional.

Copyright 1957 by NURSING WORLD Publications, Inc.

POSTMASTER: SEND FORM 3579 TO NURSING WORLD, 724 Ninth St., N. W., Washington 1, D. C.

IN THIS ISSUE

COVER: Nurses receive special training for giving care to critically ill surgical patients in the Special Care Unit at the Rhode Island Hospital, Providence, R. I. One of the important functions that is carried out by all nurses is the technique of tracheal aspiration. (Photo Credit: Rhode Island Hospital)

Lillian V. Salsman **Cecelia Abrahamer**

Looking back over ten years of activity can provide benefits in several ways; one may find suggestions for further development, and one may find reassuring evidence of progress made. A report of a decade's work in the New York State Department of Mental Hygiene is the result of collaboration between Lillian V. Salsman, R.N., M.A., and Cecelia T. Abrahamer, R.N., M.S. (page 7).

Miss Salsman graduated from Boston Univ., Phi Beta Kappa, and from the New England Deaconness Hospital School of Nursing. After three years as head nurse and instructor at her nursing school, she spent six years as superintendent of nurses at the Ellen Mitchell Memorial Hospital in Boulmein, Burma. She earned the M.A. degree in nursing education administration at Columbia Univ. After a period of graduate study in psychiatric nursing at McLean Hospital School of Nursing, she became superintendent of nurses at Ring Sanatorium (Mass.), then director of nursing service and nursing education at Hastings State Hospital, Nebraska. During the war, in the Army Nurse Corps, she was instructor at Fort Devens (Mass.) and director of cadet nurses, Army Hospital Service, First Service Command. Miss Salsman was appointed director of nursing services in New York State's Department of Mental Hygiene in March 1946. She is a member of: Zonta International, Academy of Political Science, NLN, ANA, Professional Advisory Committee of the New York State Society for Mental Health, Kappa Delta Pi, and Sigma Kappa.

Cecelia T. Abrahamer, Asst. Director of Nursing Services in the Department of Mental Hygiene, is a graduate of Willard State Hospital School of Nursing. After serving as staff nurse, head nurse and supervising nurse in various hospitals, she became educational director at Millard Fillmore Hospital in Buffalo and then Asst. Principal at the School of Nursing, Pilgrim and Creedmoor State Hospitals. Mrs. Abrahamer is a member of the State Board of Examiners of Nurses and of the State Education Commissioner's Committee on Experimental Programs in Nursing Education, and she is Chairman of the New York State League Committee on Educational Standards.

F. Carvisiglia **M. Beardsley, M.D.**

An innovation in hospital care that has attracted attention all over the country is "A Special Care Ward for Surgical Patients" at Rhode Island Hospital in Providence, R. I. It is discussed (page 11) by J. Murray Beardsley, M.D., Surgeon-in-Chief at the hospital, and Florence F. Carvisiglia, R.N., Nurse Supervisor of the Special Care Unit.

As a result of cooperative nurse-planning at the Pennsylvania Hospital, Department for Mental and Nervous Diseases, a recreation and recreational therapy program consisting of 21 group activities is provided for patients. The details of the program are described on page 14 by Mr. Sandy F. Mannino, R.N., who

(Continued on page 30)

NURSING WORLD

proudly presents

EUROPE...$987

May 18-June 16, 1957

with attendance of the ICN CONGRESS in Rome, under the direction of

DR. MARTHA E. ROGERS
Chairman, Department of Nurse Education, NYU
Vice President, NY State League for Nursing—and

MISS VIRGINIA A. TURNER
Editor, Nursing World.

*

A PROGRAM SPECIALLY PREPARED FOR NURSES—

MAY 19-23
Holland, Belgium, Rhineland, Heidelberg, Black Forest
MAY 24-26
Lucerne, Furka Pass, Rhone Glacier, Milan
MAY 26-JUNE 2
THE ICN CONGRESS IN ROME
JUNE 2-7
Hill Towns, Pisa, Florence, Venice, Geneva (W.H.O.)
JUNE 8-15
Paris and Versailles—London, Oxford, and Stratford

. . . WHO WANT TO SEE EUROPE THE INTELLIGENT WAY—

(a) introductory lecture on each country followed by
(b) comprehensive general sightseeing and
(c) a few carefully planned professional visits, with
(d) free time everywhere for independent browsing

. . . AT A COST THAT MAKES SENSE, AND INCLUDES—

FLIGHTS via KLM super-Constellation (tourist class),

RAIL TRAVEL (first class) and deluxe buses in Europe,

PLEASANT HOTELS, in Rome, too: fine meals, tips, taxes;

THE PROGRAM with competent guides and admission fees,

THEATER, opera, Follies . . . and all incidentals—EXCEPT the $15 registration fee and the ICN CONGRESS charge which are additional.

*

LIMITED ENROLLMENT . . . APPLY IMMEDIATELY
(If you want to bring a friend, advise us right away.)

STUDY ABROAD, INC., 250 W. 57th St., New York, N. Y.
Please reserve a place for me on the "NURSING WORLD" tour "EUROPE—$987", May 18-June 16, 1957. I enclose $15 registration fee. Send full particulars by return of mail.

NAME.....

ADDRESS.....

CITY.....STATE.....

Nursing World Reports

Leaders to Advise USPHS on Traineeships: The United States Public Health Service has announced the appointment of twelve leaders in nursing, hospital administration, and medicine to a committee which will advise the service on administration of the new three-year training program, established last August. The program provides funds to enable graduate nurses to receive advanced training in supervision, administration and teaching.

The most recent check with the U. S. Department of Health, Education and Welfare shows that 687 professional nurses are currently studying under grants made possible by the Health Amendments Act of 1956. Of the 687 nurses who have received traineeships under the Act, 553 graduate nurses are receiving advanced education in 56 schools under Title II; Under Title I, 134 professional nurses are being trained for public health nursing staff positions through grants to 32 schools. As of this date, no grants have been made under Title III of the Act which provides for grants to state vocational education departments earmarked for practical nurses training. Under this program, states must submit plans detailing how funds will be used to expand and improve their practical nurse training programs. To date, 12 states have submitted plans which have been approved. A preliminary survey of 416 of those enrolled under Title II shows that 117 are studying on the pre-bachelor level; 289 on the post-bachelor level and 10 on the post-master level. Of the same number, 211 are studying in teaching, 87 supervision, and 118 in administration.

Scholarship Contest: Policies for education totaling $75,000 will be issued this year to 49 winners of a national scholarship contest conducted by Johnson & Johnson in cooperation with the Mutual Benefit Life Insurance Company. The $75,000 will be provided by the Annual Youth Scholarship Fund which was set up by Johnson & Johnson to give greater educational opportunities to students in a field of their own choice. The contest will award scholarship prizes for the best 50-word essays that complete the statement: "A good education is important because . . . " The contest, which opens officially on February 4, 1957 and closes May 4, 1957, is open to any individual of any age in the United States and Canada, except employees and their families of Johnson & Johnson and its affiliated companies, and of the Mutual Benefit Life Insurance Company and its agents, and the advertising agencies of both companies. Entry blanks may be obtained by writing to the National Youth Scholarship Committee, 130 East 59th Street, New York 22, N. Y. Entries must be postmarked not later than May 4, 1957, and received by May 14, 1957.

Scholarships for Post-Graduate Study: Scholarships for additional post-graduate training in the techniques of total rehabilitation are again being made available by the Sister Elizabeth Kenny Foundation to qualified registered nurses and physical therapists. Successful candidates for the course, beginning March 25 at Elizabeth Kenny International Training Center, Minneapolis, Minnesota, will be trained in the techniques of total rehabilitation not only for polio, but other neuromuscular and neuroskeletal disorders as well, and in the management of polio from onset to maximum recovery, according to the techniques of the late Sister Kenny. The scholarships, tax-free and worth up to $8,250, are available to qualified registered nurses and physical therapists up to 40 years of age. The course is 18 months duration, with nurses enrolled for an additional 12 months of physical therapy at the Mayo Clinic, Rochester, Minn., or another approved school. Applications for scholarships may be made to the Director of Training, Sister Kenny Foundation, 2400 Foshay Tower, Minneapolis 2, Minnesota.

Civil Service Positions: An examination for Public Health Nurse has been announced by the U. S. Civil Service Commission for filling positions paying starting salaries of $4,525 and $5,440 a year in various Federal agencies in the Washington, D. C., area. Positions in the U. S. Public Health Service throughout the United States and in Alaska will also be filled. No written test is required. To qualify, applicants must have had appropriate education or a combination of education and experience, plus experience in a public health nursing program. In addition, they must be currently registered as graduate professional nurses in a State or Territory or the District of Columbia. Applications will be accepted until further notice by the Board of U. S. Civil Service Examiners, Public Health Service, Department of Health, Education, and Welfare, Washington 25, D. C. Further information and application forms may be obtained from the U. S. Civil Service Commission, Washington 25, D. C.

Guidance Plan Aids Counselors: A request from the Vermont Guidance Association to the Vermont Committee on Careers has resulted in the establishment of a procedure to help secondary school guidance personnel in their counseling of candidates for nursing. This development may be of interest to Careers Committees in other states. In Vermont, each school of nursing is providing secondary school principals and counselors with copies of reports of test results of students from their schools. The NLN Evaluation Service assists in this procedure by providing each school of nursing with two reports for every applicant at no additional charge. The reports to secondary schools are accompanied by an explanatory form letter from the school of nursing, suggesting appropriate cautions to be observed in using the test results. The letter reminds the counselor that test results are not the sole criterion used for admission to a school of nursing; that other factors such as high school performance, personality and physical characteristics are also carefully evaluated; that applicants may or may not have been notified of their acceptance or rejection by the time the school receives test results; and that the high school will receive a copy of the notice of acceptance or rejection when the applicant is notified. The form letter also includes a statement from the school of nursing describing its requirements for acceptance with specific reference to test scores on a percentile basis. Other states or individual schools desiring assistance with working out details should address inquiries to Mrs. Mildred E. Katzell, director, NLN Evaluation Service, 2 Park Avenue, New York 16, New York.

Camp Nursing: Unique opportunities for personal enrichment will be available to Registered Nurses this summer. These include Health Supervisors' assignments at established camps in all parts of the country, operated by nearly 650 Girl Scout councils. To qualify as a Health Supervisor, the applicant must be at least 21 years old. She must be an RN, registered in the state where the camp is located, if such registration is required. In addition to having had at least one year of experience as a graduate nurse, she must have had training in first aid. Previous work as a school

(Continued on page 29)

Progress in education sometimes seems almost agonizingly slow, but a backward look will often provide a cheering vista of measurable advances, as is the case in this account of

A Decade of Inservice Education in the New York State Department of Mental Hygiene

by **Lillian V. Salsman, R.N.**
Director of Nursing Services, New York State Department of Mental Hygiene, Albany, New York

and **Cecelia T. Abrahamer, R.N.**
Assistant Director of Nursing Services, New York State Department of Mental Hygiene

INSERVICE education for nursing personnel of the New York State Department of Mental Hygiene since 1946 has proceeded in a systematic manner, progressively increasing in intensity, including an ever widening scope and depth of content and embracing the best of newer methods of teaching. During the decade just completed, statewide, regional, and institutional workshop conferences have been held frequently, and these have been the directing forces, setting the standards and providing the dynamics for inservice education programs in each individual ward service of the 27 institutions of the Department.

Faculties of the Department's schools preparing professional nurses, as well as ward service personnel, have been included in many of the workshop conferences since both these groups have mutual responsibilities in setting the standards of patient care. The faculty has a special obligation in areas used for the education of student nurses. Departmental philosophy holds that what affects nursing service necessarily affects nursing education, since the two are mutually interdependent.

During the war and for some years subsequently, shortage of personnel in institutions of the Department was so critical that newly employed attendants were often placed on ward duty with little or no formal instruction. Prior to the war, all state institutions were expected to give the newly employed attendants inservice training as outlined in an official syllabus of the Department. Other ward service personnel were given inservice education of various amounts and quality.

In July 1946, the Commissioner launched plans for beginning a more intensive inservice education program for all nursing personnel, starting with the preparation of a new training manual for attendants. This manual was to be the guide for instituting a 75-hour minimum course of formal training for the newly employed to prepare them for their assigned duties. The course as outlined was tried in pilot studies at two of the state hospitals for a period of nine months. In May 1947, it was reported to a conference of all the principals, schools of nursing. and chief supervising nurses that the course had been found most satisfactory. Other institutions gradually took over the use of the standard outline until in January 1948 the Commissioner directed all institutions to include the standard 75-125-hour course for every newly employed attendant. Mimeographed copies of the training manual were forwarded to all directors. All instructors in the attendant training course, including head nurses and supervising nurses, were requested to evaluate the content and methods as outlined in the training manual from the standpoint of pertinency and effective applicability to the day-by-day, on-the-job performance of the attendants. Positions were allowed by the State Budget Division for instructors of nursing to organize and implement the inservice training in each of the Department's institutions.

The next major step in implementing the intensive inservice education program for all other categories of nursing personnel was a four-week psychiatric nursing conference, held in the spring of 1947, for nurse administrators of the educational and service programs in all institutions. The participants attended the American Psychiatric Association's Annual Convention in New York City during the first week, visited specific patient care areas in selected institutions during the second, and spent the third in concentrated study of problems found in the nursing services. The last week of the conference was devoted to summarizing the studies and preparing recommendations for future action.

Supervising nurses from N. Y. state hospitals solve mutual problems at the conference table during workshop.

Topics under consideration included such matters as the chief schools of psychiatric thought, special diagnostic and treatment procedures, research projects, nursing needs of the mentally ill and the mentally defective, and ways and means of meeting these needs. The nurse's role in psychotherapeutic nursing and the community aspects of mental health were emphasized. General aspects of nursing education which were discussed included problems of nurse administrators, teaching techniques, and standards for facilities and equipment appropriate to the modern ward and classroom.

Through this conference the Department hoped to come closer to realizing its aim by stimulating administrative nurse educators to redefine the standards essential to a progressive program of patient care and nurse education and to reexamine methods of achieving these standards. Instruction was provided in techniques for enlisting the enthusiastic cooperation of nurses and other ward personnel to work with intelligent appreciation and a dynamic philosophy in attaining in fuller measure the fundamental objectives of nursing service and nursing education, namely comprehensive programs of appropriate patient care.

At a later meeting the Commissioner re-emphasized to the administrative nurse educators that they should assume responsibility for leadership in psychiatric nursing and point the way toward the most effective use of available personnel and facilities in meeting the needs of the mentally ill. Realization of this objective demanded an immediate intensive inservice education program and the undertaking of job analyses.

On October 13, 1947, he appointed a Central Committee on Education of Nursing Personnel, consisting of six administrative nurse educators, and charged them with the responsibility of studying problems and recommending programs of inservice education for graduate nurses, practical nurses, and all attendants. An additional responsibility was to re-evaluate the programs of education for basic and affiliate student nurses in the Department's schools and to make recommendations in keeping with progressive aims of professional nurse preparation.

The committee prepared an over-all plan for inservice education, the general aim of which was to make provision for training all nursing personnel in the new techniques and therapies needed to help them in carrying out their assigned duties more effectively.

The next step of the implementation of the over-all plan was a series of four one-week workshops, which began in October 1948, for head nurses, supervising and chief supervising nurses, as well as for principals and executive faculties of the schools of nursing from all institutions of the Department. Each participant attended for one week and the problems for study were selected on the basis of the expressed needs of the personnel. These included standard nursing equipment and procedures, methods of recruitment, management policies and procedures, ward teaching manuals, and forms and records. Each participant was allowed to express his preference for group participation on the basis of the problem under consideration.

On the opening morning of each workshop week, the general assembly was used to orient the participants to their functions and responsibilities. This was followed by a "buzz session" and general orientation to the conference topics. Group sessions were held daily, and general assemblies, in addition to the opening one, convened for the midweek and final summaries. Consultants from the various fields of patient care and nursing education were called upon frequently by each group.

These workshops served to stimulate interest in improving nursing care through better educational programs. The participants formulated plans for extending the knowledge and techniques acquired into the patient care programs of their institutions. This was done by enlarging the depth and scope of inservice training and improving education for student nurses. Another major contribution was the preparation of a manual for standard hospital equipment which is kept up-to-date and continues to serve as a basic reference for personnel of the department concerned with supply and purchase. Other tangible results of the group conferences are evident in increased interest and activity in meeting the needs of all patients and in providing a better ward climate.

Another major step was a conference held in the fall of 1949 for faculty personnel concerned with educational programs for student nurses and other nursing personnel. This conference provided an opportunity for faculties to work together in evaluating and selecting ways and means to further develop their educational programs. As previously mentioned, it is the philosophy of the Department that concurrent programs of professional nurse preparation and inservice education are mutually stimulating in reaching the goal of improved patient care. As in previous workshops, general assemblies and group sessions were held and a summary report was made by each group.

The contributions of this conference continue to be reflected in more dynamic educational programs in all institutions. Some of the outstanding contributions were more clearly defined criteria for selection of student nurses, better techniques for guidance and counseling, recommendations that freshman courses in the sciences and in communication skills be taught in a college or university, and plans for patient-centered pro-

Chief supervising nurses of the Dept. of Mental Hygiene discuss the importance of patients' clothing in rehabilitation.

grams through continued intensive in-service education.

Free exchange of ideas about administrative and organizational methods, teaching techniques, and course content took place among individuals. The results of this conference, although in many instances intangible, have acted as catalytic agents in producing dynamic changes in the educational programs.

The period 1950-52 was one of intra-institutional growth with respect to patient care programs. These programs improved continuously through effecting the cumulative recommendations. These years also brought the development of the first freshman collegiate programs which began with a few of the Department's schools of nursing. Others followed quickly, and by 1953 all 18 schools were affiliated with a local college or university for courses in sciences and communication skills as recommended in the 1949 faculty conferences.

In 1952 another series of statewide conferences was held for all graduate nurses. The theme was "dynamics of interpersonal relationships." The participants had an opportunity to develop further understanding of and more effective use of the basic principles and techniques of good interpersonal relationships with patients and other team members.

At their own request, many physicians were invited as participant-consultants. They believed that problems of patient care and interrelationships were a responsibility which should be shared alike by medical staff and ward personnel.

At the same time, the ward service administrators in the six state schools, who had shared previously in all statewide conferences with state hospital personnel, held separate workshops dealing with their special problems and interrelationships with the mentally retarded.

Instead of written or oral reports, role-playing was the method used by each group for reporting the day-by-day interactions and in making their final recommendations. Role-playing was found to be a surprisingly effective means of conveying to the assembly the dynamics of the interpersonal relationships experienced within the group during discussions centering on selected problems. The participants demonstrated a sense of proportion between the humorous and the serious in everyday relationships. One important side effect of these skits was to reveal to the participants their ability in the field of role-playing and the value of this technique as a teaching tool. Of serious and lasting import is the feeling of self-value and the sympathy experienced by the participants as they become increasingly aware of therapeutic implications of interrelationships with patients.

During the following year, the institutions continued the development of broader and more intensive inservice education programs, individually or by arranging for two or more institutions to share in regional conferences. In addition to the standard course for newly employed attendants mentioned above, programs of 24-30 hours were offered supervising attendants and attendants employed one year or more. Inservice programs of education for registered nurse employees were expanded and increasing numbers of graduate nurses attended colleges and universities for courses in patient care and nursing education. With additional knowledge and improved techniques, they cooperated in organizing and implementing more effective and pertinent programs of inservice training.

One workshop, held in 1955 for chief supervising nurses only, had as its theme "Nursing Administration Evaluates Nursing Services." The participants prepared forms for activity studies and job analyses for ward service personnel. They also studied and made recommendations relative to type of clothing for patients, distribution, and ratio of clothing and linens. In addition, the conference evaluated inservice education in terms of content, scope and effect on patient care.

Each participant acquired a measure of personal and professional growth through the acquisition of new knowledge and techniques and through the generous sharing which always occurs in productive workshop groups.

One of the very advanced steps in inservice education is to be found in one of the Department's metropolitan hospitals. The plan, begun on an experimental basis, November 28, 1955, is a concentrated program of inservice education for everyone connected with patient care in the ward services. It includes representatives of all attendant and nurse personnel, social workers, occupational and recreational therapists, psychologists, and physicians. Student nurses and faculty of the school of nursing also participate. These mixed groups meet together for presentation of theory and practice regarding care, treatment, and rehabilitation of patients in general and for the application of these points to specific patients.

The emphasis in the conferences is placed on attitudes and interpersonal relationships as these relate to the patient, his visitors, and his interaction with the team personnel of the various disciplines.

The topics chosen for special discussion by each conference group arise from the problems encountered in the treatment and care of their patients. The topics requested for formal presentation in the first experimental group were:

1. Normal development (lecture followed by a panel discussion on

"Concept of Normalcy as applied to a psychiatric hospital").
2. Causes of mental illness.
3. Attitudes toward mental illness (for public, patients, staff, etc.).
4. Communication skills (inter- and intra-communications).

As this paper goes to press the institution concerned reports that this inservice program is being evaluated on the basis of "improved understanding by all team members with regard to their responsibilities, functions, and handling of the tools provided for psychiatric treatment of patients." Expressions of appreciation by team members to date would indicate that the experiment has been successful and the program, at the moment, is enjoying continuous growth.

Another metropolitan hospital of the Department has developed effective ways and means of scheduling all categories of nursing personnel from the various tours of duty for the regular programs of inservice training without causing undue strain on ward personnel or interruption of services to patients. For example, a three-day work conference in one week will be held for a group of staff attendants instead of a five-day session. This is in order that the conference group members may be the relief personnel used to provide two days of ward coverage for the off-duty time of those ward personnel working with the patients during the conference. The conference groups are composed of four attendants from the female and four from the male day service, two from the female and two from the male evening tour of duty and two from the female and two from the male night tour of duty. Each work conference group in this way averages 16 members per week. These conference groups change each week and run continuously for 48 weeks of the calendar year.

The climax of this decade of inservice education has just taken place in the form of the annual meetings of all the principals of the schools of nursing and of all the chief supervising nurses of the 18 state hospitals and three other institutions of the Department at one of the Department's hospitals. The principals met separately as a group for two days and the chief supervising nurses did likewise. On a third day both groups came together to share information, to discuss topics of common professional interest, and to solve problems of mutual concern. Since this is the first conference of this special type held to date, the Department is interested in obtaining and analyzing the formal reports which have not yet had time to reach the central office. However, informal reports indicate that the conference was highly successful and both groups have recommended that at their three-day annual meeting next year, plans be made for two days of joint conference instead of one, as the principals and chief supervising nurses find they have more problems of mutual interest to consider than they have problems to discuss separately.

In the institutions of the Department today, one finds several types of good inservice education. Newly employed attendants are placed immediately on selected training wards for a three-week period of intensive job orientation. This is followed by a 75-125-hour course, including lectures, demonstrations, discussion, laboratory practice and ward teaching related to individual patient needs.

Programs for longer employed attendants provide for a concentrated three-day, 24-hour workshop annually. This concentrated period is followed by regular conferences for furnishing up-to-date information and for discussing it with relation to the care, treatment, and rehabilitation of patients. Job satisfaction and morale of employees are also considered in these conferences. In addition to or as part of the three-day conferences, staff and supervising attendants have a brief course which includes principles and techniques of ward administration, as well as supervision in the management of continued care patients

Because staff nurses are recruited from many types of educational programs, each receives a basic orientation in the employing hospital and on the ward services immediately upon employment. This orientation includes a review of hospital policies, legal aspects involved in psychiatric nursing, principles of nursing management of mentally ill patients, therapies being used in treatment programs, and team concepts with emphasis on attitudes, relationships, and roles of various team members. Inservice education for the staff nurse is continued with other appropriate graduate nurse groups. Graduate nurses, including head, supervising, and chief supervising nurses, as well as the executive faculty of the school of nursing, have appropriate conferences, usually 30 to 40 hours annually to prepare each individual and group to carry out assigned duties more effectively and according to accepted Department standards. It is necessary for all to keep abreast of progressive developments in all areas of nursing service and nursing education. Formal education for registered nurse personnel is obtained through full-time stipends, by part-time tuition assistances, or by educational leaves with or without payment of salary.

With the rapid growth of the Department's facilities for emotionally disturbed children, plans are being developed for the special selection and training of ward personnel to work within these units. It is felt that these employees should be screened for personality traits, attitudes, and aptitudes prior to placement. Inservice education will include the psychological aspects of child growth and development, child psychiatry, legal aspects including court procedures in relation to children, skills and techniques in handling children including play and work therapies, habit training, academic education, nutrition and methods of coordinating ward care programs with all disciplines involved.

To recapitulate, the Department's nursing services, during the past 10 years, have found the most effective factors in developing programs of inservice education to be the following:

1. Careful planning which has included long-range objectives as well as immediate goals.
2. Development of objectives and sharing of responsibility for the program by both the institutional administration and the nursing service personnel.
3. Provision of full-time instructors to teach, coordinate, continuously evaluate, and revise the content and methods to meet the needs of patients and personnel.

The Department recognizes that, although core content may be recommended, flexibility must be permitted for each institution to develop programs which will allow the maximum personal and professional growth of personnel and to provide the most appropriate care for all patients.

The Central Committee on Education of Nursing Personnel, appointed by the Commissioner in 1947, worked as one continuing group for over seven years and has now been replaced by two technical committees, one for nursing education and one for nursing service. All these committees have heeded well the Commissioner's charge to assume responsibility for leadership in psychiatric nursing and to point the way toward more effective use of available personnel and facilities in meeting the needs of the mentally ill. They have not waited for formal educational institutions to provide leadership or to initiate courses to prepare ward personnel for their duties in nursing care and rehabilitation of emotionally ill individuals of all age groups. Inservice education is the forerunner of many university and college courses, for frequently the pressures exerted by personnel in the nursing services excite universities to offer formal courses to meet these needs. The Department feels its programs of inservice education have taken proper shape. It is with appreciation that the Department's nursing services review the past decade and look forward with optimism to the coming decade, trusting that further growth and appropriate development will take place to meet the needs of all patients, whatever their age group and wherever they may be found.

An unforeseen byproduct of the nursing shortage is Rhode Island Hospital's new philosophy of patient care, which led to the construction of something new and entirely different—

A Special Care Ward for Surgical Patients

by J. Murray Beardsley, M.D.
Surgeon-in-Chief, Rhode Island Hospital

and Florence F. Carvisiglia, R.N.
Nurse Supervisor of Special Care Unit, Rhode Island Hospital, Providence, R. I.

IN December 1955, the Rhode Island Hospital opened a new 450-bed main structure[1] in one wing of which was constructed a unit that was entirely different from those in other parts of the building. The Rhode Island Hospital has developed a new philosophy of patient care. Faced with a nursing shortage that made it impossible to give all patients the type of care that was considered ideal, it was decided to segregate the critically ill surgical patients in a single area where a team of nurses would be available who were trained for this particular job and would function much the same as Operating Room personnel.

It was our firm belief that by this simple expedient we could automatically accomplish the following:

1. Provide high-grade care for those patients who most needed it.
2. Lighten the burden of work in other hospital areas.
3. Lessen the demand for private duty nurses for the individual patient.

Although it has been in operation for only a little over a year, the success of the venture has been most gratifying and has more than justified its existence. Since publication of an article in *The Journal of the American Medical Association*,[2] there has been an enormous interest expressed by hospitals in other parts of the country. In addition, many hospital and nursing directors have visited our hospital to obtain more detailed information and to see this Unit in operation. There seems to be general agreement by all who are concerned with care of the patient that with over 553,000 bed-patients in this country and a continuing shortage of nursing personnel, there must be at least some departure from orthodox methods of the past.

This is especially true of the surgical patient with the increasing number and complexity of surgical procedures being performed.

Although there must always be flexibility based upon experience, we will attempt to describe some of the factors that have guided us in the operation of our Special Care Unit up until the present time.

The technique of tracheal aspiration is an important function of all nurses.

Organization

The care of the patient is a joint responsibility of doctor, nurse and administration. Realizing this fact at the onset, a Committee representing these three departments was formed. Meetings have been held every two weeks since the opening of the Unit, at which time problems are frankly discussed and an attempt is made to correct them. Although the composition of the Committee will vary with each hospital, such a Committee is very necessary and in our experience not only ensures efficient administration, but has also tended to eliminate friction and misunderstandings. In other words, the team approach to patient care has replaced unilateral planning and thinking by an individual or by any one department.

Since our Unit is purely surgical, a member of the Surgical Service acts as chairman. The Director of Nurses, the Nurse Supervisor and the Head Nurse,

[1] Total capacity of entire Hospital is 627 beds.

[2] Beardsley, J. Murray, Bowen, J. Robert and Capalbo, Carmine J.: "Centralized Treatment For Seriously Ill Surgical Patients," *J.A.M.A.*, 162:544, October 6, 1956.

All nurses assigned to the hospital's Special Care Unit are taught to draw blood and to start intravenous solutions.

Rhode Island Hospital developed a fluid balance chart that allows for eight-hour totals. Back is used for notes.

RHODE ISLAND HOSPITAL
FLUID BALANCE AND BURN CHART

	INTAKE			OUTPUT								
	P.O. TUBE	I.V.	OTHER	URINE	INT. TUBE	VOMITUS	OTHER	URINE SO4 AND/OR CHLORIDE	URINE PH	HMT.	HEMOGLOBIN	OTHER
A.M. 8												
9												
10												
11												
12												
P.M. 1												
2												
3												
4												
8 HR TOTAL												
5												
6												
7												
8												
9												
10												
11												
12												
16 HR TOTAL												
A.M. 1												
2												
3												
4												
5												
6												
7												
24 HR TOTAL												
	TOTAL INTAKE			TOTAL OUTPUT								

WEIGHT (KGM) (A.M.) _____

BALANCE _____

Electrolytes are recorded graphically on a separate chart. Both of these charts are clipped onto the patient's bed.

RHODE ISLAND HOSPITAL
ELECTROLYTE SHEET

MAR

DATE	1	5	7	9	12	15
BLOOD VOL. BAL. + OR −						
PLASMA VOL. BAL. + OR −						
B.U.N.	24	14	13	16	14	12

SODIUM: 155, 150, 145, 140, 135, 130, 125, 120, 115, 110, 105, 100
CHLORIDE: 115, 110, 105, 100, 95, 90, 85, 80, 75, 70
CO2: 60, 55, 50, 45, 40, 35, 30, 25, 20, 15, 10
POTASSIUM: 9.0, 8.5, 8.0, 7.5, 7.0, 6.5, 6.0, 5.5, 5.0, 4.5, 4.0, 3.5, 3.0, 2.5, 2.0, 1.5, 1.0, 0.5

Na+
Cl−
K
CO2

the Operating Room Nurse, a member of the Administration, the Chief Anesthetist and the Resident form the main committee. Others who are invited to attend are representatives from the Admitting Office, Social Service and any others who may contribute to a discussion which involves problems that relate to these patients.

Physical Facilities

One of the first questions that is asked is how many beds should be allotted to care for a given hospital population. This is not easy to answer. Smaller hospitals will concentrate both medical and surgical patients. There will continue to be patients who prefer to have private duty nurses. Differences of opinion exist as to how ill a patient must be to require this type of service and this will vary with the individual surgeon. Ideally, all patients should be segregated according to the type of care required, but this idea is somewhat revolutionary and, for the present at least, impractical.

Twenty-eight beds were planned for our 450-bed unit. So far, only sixteen have been utilized because of nursing shortage. They have been quite effective in accomplishing our major aims, but we believe that a better job could be done if the entire twenty-eight were in use. This does not mean that there are twenty-eight critically ill surgical patients to be cared for at any one time, but it would allow for more perfect coverage for a short period of other postoperative cases such as cholecystectomies and thyroidectomies. These patients, as a rule, return to the normal nursing units where there is less intense nursing care.

The nursing stations are placed in the center rather than at the base of the wing; the generous use of glass partitions makes it possible to see most of the sixteen patients from the nurse's desk. In addition to the advantage of close observation of the patient, there is a saving of time and steps. The Unit is broken up into one-, two-, three- and four-bed rooms. In general, the single rooms are reserved for the more seriously ill or terminal cases. No distinction is made between ward and private patients. Wall suction and oxygen are provided for each bed, as well as wall sphigmomanometers. Our Unit is one floor away from the Operating Room, so patients can be transferred here from the Recovery Room in less than five minutes. Sleeping quarters are provided for the Surgical Resident who is available at all times through the 24-hour period.

An emergency bell which connects with the Operating Room is used to summon additional assistance when an emergency develops.

Visiting at the patient's bedside is kept to a minimum and flowers are not permitted. Smoking is not allowed.

Equipment

An effort has been made to keep this Unit completely equipped at all times, making it unnecessary to rely on Central Supply or the Operating Room. A small laboratory is available for the Resident's use so that instant hematocrit and other minor laboratory procedures can be carried out. However, we depend for the most part on the main laboratory which is two floors away. Cut-down and lumbar puncture sets, in-bed scales, pharyngeal airways and tracheotomy, thoracentesis and paracentesis trays are completely set up at all times. In addition, all intravenous solutions are kept on the Unit.

Selection of Patients

The majority of patients arrive in the Special Care Unit from the Operating Room after brief observation in the Recovery Room. An effort is made to determine in advance which postoperative patients will be arriving on the Unit. This, of course, is not always possible. Others are transferred from other areas of the Hospital when some surgical complication develops. The Accident Room refers patients with extensive burns, severe gastrointestinal bleeders, or other surgical patients in critical condition. Discharge of the patients from the Unit is the responsibility of the Surgical Resident. When intensive care is no longer needed or when room must be made for a more seriously ill patient, he makes the decision and notifies the physician that his patient is being moved back to a regular nursing unit.

Records

Emphasis has been placed upon the elimination of impractical nursing bookkeeping such as detailed longhand notes. On the other hand, the religious and up-to-the-minute charting of fluid intake and output records is insisted upon. To facilitate this, we have developed a new type of chart which is totalled every eight hours.

Brief nursing notes are recorded on the back of the fluid balance chart. Electrolytes are also charted graphically on a separate chart. These two sheets, together with the temperature, pulse, blood pressure and respiration chart are clipped on the patient's bed, but the main body of the chart is kept in the nursing station. This makes it possible for the surgeon to obtain all pertinent information at a glance while other more detailed information about the patient can readily be obtained from the Resident or one of the nurses on duty. We feel that this system has been most satisfactory to both the Nursing and Surgical Departments.

Additional records have been kept for research purposes. These include a listing of diagnoses, complications, length of stay and other factors that will allow for a summary of our experience at some future time.

Personnel Coverage

The Unit is staffed by a head nurse, an assistant head nurse, licensed practical nurses and orderlies (male attendants). The assistant head nurse relieves the head nurse for her days off-duty and functions as a staff nurse when they are on duty together. On this Unit, nurses have been taught to draw blood and start intravenous solutions.

The practical nurses have been instructed in the techniques of irrigating various types of drainage tubes, carrying out tracheal suction, and removing intravenous needles. They do not give oral or parenteral medications. Orderlies assist nurses with nursing care of male patients.

For an average census of 13-14 patients, we try to maintain the following ratio of personnel:

		RN	LPN	Ord.
Day	8-4:30 or 9-5:30	4*	2	1
Evening	3:30-12	2	1	1
Night	12-8	2 or 1	1 2	1 1

*Not including head nurse. On week-ends, when no surgery is regularly scheduled, this figure drops to 2 or 3.

To provide this coverage, it is necessary to assign to the Unit eleven staff nurses who either work a permanent evening or night shift or who rotate to these hours for three weeks of an eight-week period.

Since no private duty nurses are permitted here, one nurse may care for one patient during her eight-hour tour of duty if the patient is in need of constant care. Generally, however, one nurse is responsible for intravenous therapy for the day, and each of the three other nurses supervises the care of a group of patients with the assistance of one of the auxiliary workers.

Transferring nurses from the Special Care Unit to other nursing units to meet a coverage problem is not permitted except in cases of extreme emergency.

Summary

A brief description of a Special Care Unit at Rhode Island Hospital which has been in operation for over one year for the care of seriously ill surgical patients is presented.

In our opinion, this has been a real step forward in solving some of the problems that have arisen because of the nursing shortage.

NOTE: We have been fortunate in receiving a grant from the Hartford Foundation of New York which has been of great assistance in carrying out research in this particular field.

A recreational therapist describes the uses and effects of recreational therapy in the treatment of psychiatric patients by analyzing

The role of the NURSE in Recreational Therapy

by Sandy F. Mannino, R.N.
Director of Recreational Therapy, Pennsylvania Hospital, Department for Mental and Nervous Diseases, Philadelphia, Pennsylvania

ALTHOUGH much has been written about the value and importance of recreational therapy in the total treatment program of the psychiatric patient, very little material is available which presents the specific role of the nurse in this program. It is the purpose of this article to show how valuable the nurse's contribution is, and what part the nurse plays in the program.

In order to do this, we thought it might be helpful if we were to present the recreational program of the Pennsylvania Hospital, Department for Mental and Nervous Diseases, Philadelphia, Pennsylvania, as a guide. In this manner we can illustrate a specific program and at the same time describe the roles played by the nurse.

The Program

In the beginning we would like to establish that our program is one of recreation and recreational therapy; this distinction is necessary because we do not deal exclusively with therapy. (In this sense we are implying that recreational therapy is any game, sport, or play activity that is prescribed for the individual patient because of its therapeutic value. All other activities of a play nature would come under the heading of recreation and are aimed at creating social groups who will be seeking enjoyment from these activities.)

In our program we try to utilize the services of as many of the specialists in the various hospital departments as we can. To do this we have a Recreation Committee of five members. The members of this committee are: the occupational therapy director, the music therapy director, two nurses, and the recreational director who acts as chairman of the committee. (Here we see one of the first roles of the nurses, for as committee members they have a part in planning the program.)

The Recreation Committee meets once a month to plan the activity program for the following month. Ideas are presented by the members, and a program is formulated. In this planning the members will offer the services of their departments and will also present their views as to what type of activity we ought to provide for our patients.

With this type of cooperative planning a varied program of high quality is offered. This planning also helps to prevent conflicts such as competing with other departments and with other scheduled activities. As the result of such planning we find that we can offer a program of group recreational activities that includes 21 different types of entertainment, and in all of these the nurse plays an active part as a planner, a participator, a spectator, a leader, a team member, an organizer or a friend. The following is a list of the different activities we offer:

1. Variety shows
2. Banquets

afar
The pie is all but the cake is yet
An industrious wife is a man's best savings bank
He's on his off, and his off is almost all
toe
nim

An outstanding event in the recreational therapy program of the Pennsylvania Hospital Department for Mental and Nervous Diseases was "Neither PLAIN Nor FANCY," variety show featuring student nurses (shown in photograph above) and patients.

3. Baseball
4. Square Dances
5. Social Dances
6. Color Slide Programs
7. Movies
8. Soccer
9. Graduate and Student Nurses Recreation Units for Ward Parties
10. Quiz Shows
11. Ward Musical Tours
12. Santa Claus Tour of Wards with Caroleers
13. Music Appreciation Hour
14. Dramas
15. Bingo Parties
16. Field Days
17. Carnival
18. Softball
19. Shuffleboard
20. Out-of-Doors Suppers and Shows
21. Concerts

The Role of the Nurse

The part the nurse plays in these activities might best be shown by describing several of the activities.

One of the activities which we find our continued-care patients enjoy is the Recreation Unit Party. For these parties we use the student and graduate nurses who are off-duty and have volunteered their services. We believe that a person who gives his free time will be more effectively motivated than one who is drafted from other duties. It creates in the student the feeling that he (or she) is contributing his services in the same manner as the volunteers who work for the Red Cross, USO, and other groups. The nurses who volunteer are used in two capacities—one group is used to entertain the patients by singing, playing instruments, etc., and the other group is used for dancing with the patients. The male students dance with the female patients, and these patients derive a tremendous amount of pleasure from this activity. The students come away from these affairs with a feeling of having done something worthwhile. It is good for their egos, and the satisfaction they derive from these affairs makes it worthwhile recreation for them as well as for the patients.

For these affairs the nurses are given guidance so that they will make their most effective contribution—one that is therapeutic rather than traumatic. They are oriented as to the situation they are likely to find among this group of patients such as the fact that there may be some poor dancers, or bizarre behavior, and that in such instances the nurse is to try to handle the case in such a manner that the patient does not feel rejected, jealous, or ridiculed. Nurses are instructed not to laugh because of these unusual situations. They are also instructed as to the therapeutic value of the visit to these chronic patients; those who don't dance may derive just as much enjoyment from the friendly smile and conversation of the nurse who takes the time to give them a little of her attention. I feel that there is great therapy

in a smile and that these parties for the continued-care patients are among the most rewarding activities that we present in our program.

The Variety Shows seem to have the greatest appeal for our patients, and these are the best attended of all of our entertainments.

In these shows, the nurse may participate as an entertainer or as a companion for the group. These shows are set up as Night Clubs, and after a set of variety acts (generally a set will consist of three numbers), the patients dance with the student nurses and other patients. Food is served, souvenirs are given out, and a spirit of gaiety prevails. These shows would not be possible without the aid of the student and graduate nurses.

Here again the nurse makes a valuable contribution, not only as an entertainer, but also as a companion and observer. When accompanying the patients to any activity the nurse plays an important active part. It is a mistake to think that the nurse is a passive participant when he or she is accompanying a group of patients to any activity. If the nurse feels that it is his *duty* to herd this group of patients to the activity, then the feeling is picked up by the group, and they think of him as a warden or guard. As a companion for a group attending an activity, the nurse can make a valuable contribution by becoming an active member of the group. By showing enthusiasm for the activity, by dressing attractively, and by using "we" in remarks addressed to the patients, the nurse can do much to create the right spirit to make it easier for the patient to enjoy the activity. For instance, "We are going to a show," rather than "You are going to a show," "you are going to enjoy this," etc. Making the patient feel that you are part of the group greatly enhances his desire to attend activities and his enjoyment of them.

For these shows, I might mention that the patients also contribute services such as being entertainers, making decorations under supervision of the Occupational Therapy Department, and in a number of ways. I make mention of this because in describing the various activities I am stressing the nurse's contributions, but nevertheless it is to be understood that the patient is also an active participant in many of these activities, and not always just a spectator.

As an observer at these activities the nurse may give valuable information to the psychiatrist as to the patient's behavior. Many mental mechanisms are brought to play at the various activities, and these should be observed and reported. Too often nurses return from programs and report that the patients seemed to have a good time, or were bored to death, etc. Yet much more transpired that would have great value if reported. A patient may have shown some hostility, and this may have been directed against one of the entertainers; another patient may have used identification by saying, "I know that nurse, she is on our ward." "I think it is wonderful that she is in this show!" "May I go up and speak to her?" Any behavior such as displacement, fantasy, joy, fear, and other emotions registered should be reported. This may be of great significance to the therapist.

The baseball games in which the men student nurses and some of the men patients play visiting sandlot teams are another example of the nurse's participation in the recreational program. In this activity the men nurses offer their free evening time to participate in two baseball games per week—a total of about 40 games per season.

These games are played for the patients with the intention of creating a normal community life. The games are officiated over by paid professional umpires, and are conducted along the lines of the big league games. (The caliber of the games is not the same as that of the professional games, but the enjoyment may be every bit as great as it is at the professional games. Patient loyalty is high, and their support is very satisfying to the nurse and patient players.)

The patients are both spectators and participants in this program. A number of them assist by keeping the scoreboard up-to-date inning by inning, distributing candy, cooking hot dogs, or manning the amplifier and microphone. FM music is played over the amplifier system, and many patients attend the games just to listen to the music.

At these games the patient has many outlets for his emotions, and we see a number of mechanisms at work—displacement, hostility, empathy, rationalization, and the like. Here again the nurse may make a number of observations that will be of value to the psychiatric team.

The nurse also plays a much more personal role in the unscheduled recreational activities, and in the therapeutic activities. As a member of the psychiatrist-therapist-nurse team, the nurse has an important role to play in the therapeutic program. The nurse again can make observations that will be of value to the team, and also by being aware of what is being planned for the individual patient she may play her role in such a manner that she will not thwart the plans of the therapeutic team. Many times nurses unwittingly defeat the purpose of the planned therapy for a specific patient because they are not informed as to what is being done for this patient, and what things should be avoided if this program is to be effective. As an example, the nurse may engage in a highly competitive sport with the patient and defeat him in this sport. When his therapy was planned, it was decided that this patient should not engage in competitive sports due to his family history. Because the nurses were not informed of this plan, damage is done. Therefore, it is necessary in all planning to provide communication with all interested personnel if the plan is to be effective. It is also the duty of the nurse to inform herself as much as possible concerning each specific patient before any activity is planned. The nurse should always consult the therapist before attempting any recreational activity that the patient has not engaged in before.

In our program, nurse-therapist-psychiatrist conferences are frequently held to outline and plan a therapeutic program for a specific patient.

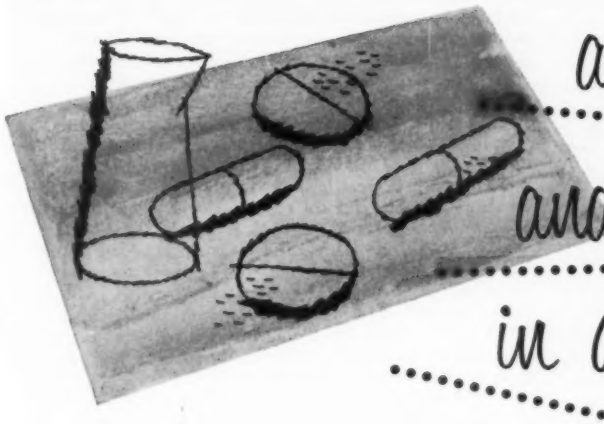
In many other unscheduled recreational activities the nurse plays an important role by being a leader in a team sport, or by participating in games with individual patients. A group may play shuffleboard and ask the nurse to be a member of the group; his attitude and contribution to the group's play may be very useful in fostering friendly relationships with that group or patient. An attitude of willingness to participate is important in games involving patients. Refusal to participate on the part of the nurse may be interpreted as rejection and may create hostility or dislike of the nurse. This will be harmful for all future interpersonal relationships between the nurse and the patient.

In conclusion, it is obvious that the nurse plays a very important role in the total therapy program of the patient. It is also obvious that if the nurse is to be an effective member of the psychiatric team he must have a broad background of psychiatric training, a fair knowledge of sports, games, and other recreational activities, and that a system of communication between therapists and nurses must be in effect. The therapist who is associated with a hospital having a school of nursing that provides a good psychiatric training program, and who utilizes the nurses as much as possible in his program, will tend to have a broader, better balanced program to offer his patients, for in the nurse's group there is always a wealth of talent that can be applied to the specialized and diversified needs of the patients.

References

Noves, Arthur P.: *Modern Clinical Psychiatry*, 4th Edition, 1955, W. B. Saunders Co. Philadelphia, pp. 41-65.

Ingram, M. E.: *Principles and Techniques of Psychiatric Nursing*, 4th Edition, W. B. Saunders Co., Philadelphia, pp. 375-384.



advances and trends in drug therapy

by Joan Sarvajic, R.N.
Formerly Instructor in Pharmacology, Bellevue Schools of Nursing, New York City

A Review of Parasympathomimetic Drugs

In the February issue of *Nursing World*, the story of the discovery of the chemical mediators which transmit nerve impulses was unfolded. This article proposes to compare the effects of the synthetic choline esters, methacholine, carbachol, and bethanechol whose synthesis was the result of the clinical inadequacy of the cholinergic mediator, acetylcholine; secondly, the rational discovery of reversible inhibitors of cholinesterase, physostigmine and neostigmine; and finally of the comparatively irreversible inhibitors of cholinesterase, diisopropylfluorophosphate or DFP and tetraethylpyrophosphate or TEPP.

It will be recalled that stimulation of the parasympathetic autonomic nerves to smooth, cardiac, and exocrine glands results in the release of acetylcholine, a chemical substance which elicits characteristic parasympathetic responses at effector organs. Acetylcholine is not only the mediator at postganglionic parasympathetics, but "cholinergic" nerves include both sympathetic and parasympathetic preganglionic fibers, splanchnic fibers to the adrenal medulla, somatic nerve fibers to skeletal muscle, the somatic small motor nerves to intrafusal fibers in mammalian skeletal muscle spindles, and the anatomically "sympathetic" fibers to sweat glands and certain blood vessels.

Recalling, then, the responses to parasympathetic nerve stimulation, it is comparatively simple to predict the response of the body to the introduction of acetylcholine into the body. These effects are classified as "muscarinic" and "nicotinic." Muscarinic actions are the effects seen at peripheral effector organs and include the slowing of the heart as a result of vagal stimulation, smooth muscle stimulation resulting in the rhythmic contractions of the intestines, the contractions of the urinary bladder, constriction of bronchi, miosis, increased bronchial secretions, and a lowering of the blood pressure as a result of peripheral vasodilation. In summary, the muscarinic effects are those seen at cells innervated by postganglionic cholinergic nerves.

The "nicotinic" effect refers to the action of the drug on cells innervated by preganglionic or somatic motor nerves, autonomic ganglion cells, adrenal medullary cells, and skeletal muscle fibers. In reference to skeletal muscle, a transient increase in muscle power is seen in patients with myasthenia gravis following the introduction of acetylcholine in the body. When the muscarinic effects of acetylcholine are masked by the use of a cholinergic blocking agent such as atropine, there is a rise in blood pressure due to the nicotinic action of acetylcholine on sympathetic ganglia and the adrenal medulla.

Although acetylcholine had been studied pharmacologically since 1906, no attempt was made to use it until 1928, when Villaret and Justin-Besancon employed it in clinical trial in a wide variety of diseases. To utilize its vasodilating properties, the drug was used in Raynaud's disease, thromboangiitis obliterans, gangrene, varicose ulcers, and hypertension. Results obtained were not encouraging. Even when administered by iontophoresis in peripheral vascular syndromes, the drug is ineffective. Although muscle power can be restored by acetylcholine in patients with myasthenia gravis, the results are only transient. However, attacks of paroxysmal tachycardia were successfully terminated by the intravenous injection of 20 to 100 mgm. of acetylcholine.

It is not surprising that clinical use of acetylcholine proved discouraging. It will be recalled that the presence of cholinesterase in the body catalyzes the rapid hydrolysis of acetylcholine to choline and acetic acid. Choline, by comparison with acetylcholine, only weakly mimics the effects of acetylcholine. Not only is the transient character of acetylcholine due to this hydrolysis, but also to the fact that the nicotinic actions of the drug are in opposition to the muscarinic actions. The acetylcholine-induced sympathoadrenal discharge tends to counteract many of the peripheral autonomic effects of the drug.

The unsuitability of acetylcholine for clinical purposes stimulated the search for synthetic choline esters which would be more useful in therapeutics. A major objective was to obtain compounds with greater stability than acetylcholine and with more sustained action in the body. The second objective was to find choline esters which selectively affect certain structures in the body only, thus lending themselves to special therapeutic use. Of several hundred synthetic choline derivatives, only methacholine, carbachol, and bethanechol have proved satisfactory for general clinical use.

In comparing the mechanism of action of the synthetic choline esters it is of interest to note that they all act directly on effector cells to elicit their characteristic responses. At least in the case of muscle and ganglion cells, this action is one of depolarization of the postsynaptic membrane. Of these three, methacholine is least stable because it is somewhat susceptible to hydrolysis by cholinesterase. However, the chemical structures of carbachol and bethanechol by contrast render them insusceptible to hydrolysis by the enzyme and consequently these drugs have one of the sought-for characteristics, that of stability.

In comparing the "nicotinic effects" of these drugs it is noted that carbachol has the most marked nicotinic

effect while bethanechol has no nicotinic effect whatsoever. Because of its merely feeble nicotinic effect, it is comparatively safe to use methacholine in a unique test for the differential diagnosis of pheochromocytoma. A 15 to 25 mgm. dose of the drug is injected subcutaneously. The usual vasodepressor response is quickly replaced by a marked rise in systolic and diastolic pressure, accompanied by all the characteristic signs and symptoms of a paroxysmal attack of hypertension due to pheochromocytoma. Since atropine abolishes the hypotensive but not the hypertensive response, methacholine must cause secretion of adrenergically active substances such as adrenalin and norepinephrine from the chromaffin tumor either by its ganglionic (nicotinic) excitatory action or by some unusual direct effect on the tumor cells. The parenteral administration of one mgm. of atropine increases the safety of the test without interfering with its value.

Comparing the muscarinic effects of these drugs, one finds that methacholine possesses the most marked cardiovascular effects. The subcutaneous administration of this drug has proved successful in terminating attacks of paroxysmal tachycardia. Carbachol and bethanechol are comparable in their effects on the gastrointestinal tract and the urinary bladder, and in causing miosis. It is not strange then to find that these are the fields in which these drugs are particularly useful. Thus bethanechol and carbachol are useful in combating urinary retention, gastric retention after vagotomy, and abdominal distention. They are also utilized to relieve glaucoma by producing miosis with consequent decrease in intraocular pressure. Bethanechol is about one-tenth as potent as carbachol, but its margin of safety is greater.

Methacholine and carbachol are utilized in the therapy of peripheral vascular disease. Their vasodilating effects are beneficial when there is an associated factor of vasospasm. Both drugs can be given orally. Methacholine is also successfully given by iontophoresis. Carbachol, however, results in a high incidence of systemic reactions and so it is not given by the method of ion transfer.

If drugs are capable of inhibiting cholinesterase, then the effects of acetylcholine will be exhibited in the body more intensely and over a somewhat more prolonged period. Although many drugs inhibit acetylcholinesterase, the most potent and specific are physostigmine or Eserine, neostigmine or Prostigmine, diisopropylfluorophosphate or DFP, and tetraethylpyrophosphate or TEPP. Of this group, physostigmine and neostigmine are called *reversible* inhibitors. In chemical structure they are related to the acetylcholine molecule. They do not destroy the enzyme as do DFP and TEPP but merely inactivate it temporarily by the formation of an easily dissociable complex. This enzyme-inhibitor complex can be associated in various ways with a resulting restoration of full enzymatic activity. In the body, physostigmine is released from combination with the enzyme by destruction of the drug.

By preventing rapid enzymatic inactivation of acetylcholine, physostigmine and neostigmine allow acetylcholine to exert not only its muscarinic actions on smooth muscles, secretory glands, and the heart, but also the nicotinic actions on skeletal muscle and autonomic ganglia. If the affinity of acetylcholine for cholinesterase be given the value of 100, then the value of eserine is 3×10^6 and that for neostigmine 8×10^6.

Unlike neostigmine, physostigmine exhibits no direct action on skeletal muscle. After the cholinergic nerves to smooth muscle and gland cells are resected and degenerate, acetylcholine is no longer locally liberated. Under such circumstances, physostigmine fails to manifest its characteristic effects. Intra-arterial physostigmine does not produce an immediate contractile response in voluntary muscle, and the drug is without effect on chronically denervated mammalian skeletal muscle. For these reasons, physostigmine exerts its pharmacological effects solely as a result of its anticholinesterase activity. In this respect it differs from neostigmine and resembles DFP.

It is possible to predict the pharmacological properties of physostigmine and neostigmine merely by knowing those loci where acetylcholine is physiologically released by nerve impulses and the responses of the corresponding effector organs to the chemical mediator. The final responses of the autonomic effector organs to physostigmine and Prostigmine depend on the balance between the ganglionic and peripheral components of action. The response of the effectors to physostigmine also depends on whether they receive cholinergic nerve impulses continuously or phasically. When a therapeutic dose of the drug is given to a man, the actions on the pupil and bowel are more prominent than those on skeletal muscle. Because of the unpredictable side effects of physostigmine, its therapeutic use is confined largely to ophthalmalogy. When applied locally to the conjunctiva it produces miosis in a few minutes as well as spasm of accommodation.

Neostigmine shares the pharmacological actions of other parasympathomimetic drugs, but important quantitative differences exist. It is less potent than physostigmine in its actions on the cardiovascular system and iris, and more selective in its action on the skeletal muscle, urinary bladder, and gastrointestinal tract. Neostigmine is employed therapeutically for its effects on the latter-mentioned structures. It is the drug of choice for relief of abdominal distention from a variety of medical and surgical causes. It is also used for the prevention and treatment of atony of the detrusor muscle of the urinary bladder. Postoperative dysuria is relieved and the time interval between operation and spontaneous urination shortened.

Perhaps the most spectacular use of neostigmine is in the therapy of myasthenia gravis. It is believed that in this disease muscular weakness is due to a decreased synthesis or release of acetylcholine at neuromuscular junctions, and that a circulating or locally produced curariform substance raises the threshold of the end-plate to acetylcholine released by somatic nerve impulse. Thus neostigmine, by inhibiting cholinesterase and also by stimulating skeletal muscle directly, often affords dramatic relief in disease.

The irreversible inhibitors of cholinesterase, DFP and TEPP, are distinguished from the reversible inhibitors both in their duration of action and in the fact that they are structurally difficult to relate to acetylcholine. The duration of action of DFP is considerably longer than that of TEPP. The fact that there are differences in duration of action indicates that the term "irreversible" has relative rather than absolute significance.

Diisopropylflurophosphate, or DFP, was thoroughly studied as a potential chemical warfare agent during World War II. British investigators first observed the cholinergic effects of DFP in 1941. The pharmacological actions of DFP are predominantly due to inactivation of cholinesterase. DFP has had clinical trial in glaucoma, myasthenia gravis, and postoperative ileus. Its value has been established only for glaucoma.

Bibliography

Acheson, G. H., Langohr, J. L., and J. B. Stanbury: "Sensitivity of Skeletal Muscle to Intra-arterial Acetylcholine in Normal and Myasthenic Man," *J. Clin. Investigation*, 1948, 27, 439-445.

Adrian, E. D., Feldberg, W., and B. A. Kilby: "The Cholinesterase Inhibiting Action of Fluorophosphonates," *Brit. J. Pharmacol.*, 1947, 2, 56-58.

Burgen, A. S. V.: "The Mechanism of Action of Anticholinesterase Drugs," *British J. Pharmacol.*, 1949, 4, 219-228.

Goodman, L. S., and Gilman, A.: *The Pharmacological Basis of Therapeutics*. The Macmillam Co., N. Y., 1955.

Schwab, R. S. and W. P. Chapman: "Clinical Uses of Neostigmine," *M. Clin. North America*, 1947, 31, 1238-1260.

DESCRIPTION: Diisopropylfluorophosphate, better known as DFP, is one of a group of alkyl fluorophosphates thoroughly studied as a potential chemical warfare agent during World War II.

ACTION AND EFFECTS: DFP is described as an irreversible inhibitor of cholinesterase by virtue of its long duration of action and of the fact that structurally this drug is difficult to relate to acetylcholine. Actually the term "irreversible" has only relative, rather than absolute, significance. The actions of DFP are due predominantly, if not entirely, to inactivation of cholinesterase. Large or repeated doses cause symptoms predominantly of gastrointestinal origin. Nausea, epigastric distress, vomiting, abdominal cramps, increased peristalsis, and diarrhea are noted. Symptoms referable to the central nervous system are less frequently noted. Intra-arterial injection of DFP in myasthenic patients produces a striking localized increase in muscle strength which is detectable for days. Instilled locally into the normal eye, DFP causes miosis which may last many days, conjunctival hyperemia, ciliary spasm, false myopia, and decrease in intraocular tension.

USES: Although DFP has had clinical trial in symptomatic therapy of glaucoma, myasthenia gravis, and postoperative ileus, its value has been established only for glaucoma.

DFP is the most potent and persistent miotic known, and it has proved to be of value in the symptomatic therapy of glaucoma. Best results are obtained in chronic simple glaucoma and in glaucoma following cataract extraction.

DFP has been used for the symptomatic therapy of myasthenia gravis but the results are not as consistent or as good as those obtained with neostigmine. Increasing the dose to improve effects resulted in marked nausea and vomiting and unpleasant symptoms referable to central nervous system excitation. The drug, however, may be injected intramuscularly once or twice weekly as a supplement to neostigmine therapy. Certain patients are benefited by this procedure. Smaller doses of neostigmine are then required, and the necessity of taking neostigmine during the night may be obviated.

PREPARATIONS: DFP is official in the U.S.P. It is marketed only for ophthalmological use in 5 ml. vials containing a 0.1 per cent solution in peanut oil.

DOSAGE AND ADMINISTRATION: DFP has been administered orally in gelatin capsules, as a 1.0 per cent solution in peanut oil. A 0.1 per cent sterile solution in peanut oil can be injected intramuscularly. For instillation in the conjunctival sac, a 0.01 to a 0.1 per cent solution of DFP in peanut oil is employed. The intramuscular dose for adults is 2 to 3 mgm. The oral dose is 10 to 15 mgm.

TOXICITY: Minimal systemic absorption may occur in humans from conjunctival instillation of the drug but systemic symptoms rarely, if ever, occur when therapeutic concentrations are employed. Investigators working with DFP may acquire ocular effects from exposure to the vapor of the drug.

PRECAUTIONS: The most common side effects of the drug are headache, brow pain, photophobia, and blurred vision from ciliary spasm. In 20 per cent of patients treated, the symptoms have been so bothersome that medication may have had to be discontinued. Occasionally intraocular pressure is elevated instead of lowered, especially in narrow-angle glaucoma. Other miotics may have the same effect in this case. Pericorneal infection and congestive iritis sometimes occur early but they tend to disappear on continued use of DFP. Obviously, DFP is not to be employed promiscuously. Its dosage must be carefully determined and regulated, and the patient should be observed closely. If tension does not fall appreciably within forty-eight hours after initiating DFP therapy, recourse should be had to other measures.

TETRAETHYLPYROPHOSPHATE — ANTICHOLINESTERASE INSECTICIDE

DESCRIPTION: A large number of DFP congeners have been synthesized and examined for anticholinesterase activity. TEPP, or tetraethylpyrophosphate, warrants special mention. This compound was prepared a century ago. It is a colorless, syrupy, hygroscopic liquid which is soluble and unstable in water.

ACTION AND EFFECTS: The pharmacological actions of TEPP are very similar to those of DFP, and they can be almost entirely explained on the basis of inhibition of cholinesterase. Such differences as do exist are attributable to differences in solubility, rate of hydrolysis, detoxification rate, intensity of anticholinesterasic activity, and reversibility of inhibition of the enzyme. TEPP exhibits all the muscarinic, nicotinic, and central stimulant effects of acetylcholine. It is more potent than DFP as a cholinesterase inhibitor, and it evokes more marked nicotinic and less marked central nervous system effects than does its congener.

USES: TEPP has had therapeutic trial in myasthenia gravis. The margin of safety is narrow, and symptoms of overdosage are not uncommon. The drug is unstable and difficult to prepare for administration. Atropine must be given concurrently. Some patients experience a greater increase in endurance and longer sustained improvement in muscle strength than they do with neostigmine medication. Other patients cannot tolerate the drug.

TEPP has also been tried as a miotic agent for patients with glaucoma. The drug has no compelling advantages over DFP, and it tends to induce conjunctival sensitization.

An unusual local use of TEPP is for the treatment of pediculosis ciliaris.

PREPARATIONS: TEPP is not official and is not described in N.N.R. For use as an agricultural insecticide, TEPP is usually supplied in solution or emulsion in organic solvents.

DOSAGE AND ADMINISTRATION: The average oral dose in myasthenia gravis is 10 to 15 mgm. for adults, divided into two or three portions. If neostigmine is also employed, the TEPP should be given one hour or more beforehand.

It is administered topically in the treatment of glaucoma as a 0.05 to 0.1 per cent solution in peanut oil.

TOXICITY: Stimulation of autonomic ganglia, skeletal muscles, and central nervous system is followed by marked depression. Respiratory paralysis may occur as a result of paralysis of skeletal neuromuscular junctions and of the medullary respiratory center.

PRECAUTIONS: Poisoning by TEPP is usually caused by its accidental ingestion or by careless exposure in the course of its use as an insecticide. Fatalities have been reported. Atropine is the chief antidote; it counteracts the central and muscarinic effects. Artificial respiration should be used to provide adequate pulmonary exchange.

PHYSOSTIGMINE — PARASYMPATHOMIMETIC

DESCRIPTION: Physostigmine, also called Eserine, is an alkaloid obtained from the calabar or ordeal bean. It is the dried ripe seed of Physostigma venosum Balfour, which grows on the banks of streams in tropical West Africa.

ACTION AND EFFECTS: Physostigmine exerts its pharmacological activity mainly by inhibiting acetylcholinesterase in body fluids and tissues. This esterase is responsible for the rapid and continuous destruction of acetylcholine, whether the latter is produced physiologically as the result of cholinergic nerve impulses or administered by the physician. Physostigmine preserves acetylcholine from enzymatic hydrolysis and allows it to exert its characteristics in an intensified manner. These include the muscarinic actions of acetylcholine on smooth muscles, secretory glands, and the heart, as well as the nicotinic actions on autonomic ganglia and skeletal muscle. When applied locally to the conjunctiva, physostigmine causes pupillary constriction and spasm of accommodation. The drug also increases tone and motility of the gastrointestinal tract. Peristalsis is exaggerated and bowel evacuation may result.

USES: The therapeutic uses of physostigmine are quite limited and are largely confined to its ocular and intestinal actions. It is used in glaucoma to reduce intraocular pressure. In alternation with atropine, physostigmine may be helpful in breaking adhesions between the iris and lens or cornea. The drug may be given after a mydriatic to bring the pupil to normal size.

PREPARATIONS: The drug is marketed as Physostigmine Salicylate U.S.P.

DOSAGE AND ADMINISTRATION: For ocular use the drug is administered topically in 0.02 per cent solutions when medication with the drug is chronic as in glaucoma. For breaking adhesions, it is used in 0.1 to 1.0 per cent solution. When it is used to increase peristalsis, physostigmine is administered hypodermically in doses of 1 or 2 mgm.

TOXICITY: Poisoning occurs accidentally in medical practice. Effects on the bowel are the first to be noted, and violent peristalsis, nausea, vomiting, and colic and defecation occur. Fascicular twitchings, nystagmus and dysarthria are seen. Restlessness and weakness are marked. Pupils are pin-point in size, and distant objects are blurred. Sweating, salivation and lacrimation may be marked. Bronchiolar and pharyngeal constriction and abundant pulmonary secretions result in respiratory embarrassment and dyspnea. Urinary urgency and difficulty in voiding occur. An ashen-gray skin, cold perspiration, rapid heart rate, weak pulse, and blood pressure at shock levels are the usual findings. The patient is conscious, and fear of impending disaster is evident. Pulmonary edema or central respiratory paralysis is the immediate cause of death.

PRECAUTIONS: The use of any anticholinesterase and choline ester is always to be considered as dangerous. Hypodermic or intravenous administration of 1 to 2 mgm. of atropine sulfate may be used as a physiological antidote. Atropine, a cholinergic blocking agent, quickly counteracts the effects of physostigmine on the lungs and circulation, but it does not influence the annoying though relatively innocuous skeletal muscle twitchings. They subside as the anticholinesterase is destroyed and eliminated. If they interfere with respiration, endotracheal intubation and artificial positive pressure with oxygen should be performed.

NEOSTIGMINE — PARASYMPATHOMIMETIC

DESCRIPTION: As a result of research in elucidating the chemical basis of anticholinesterase activity, the synthetic substance, neostigmine, was introduced into therapeutics in 1931.

ACTION AND EFFECTS: The anticholinesterase activity of neostigmine is probably due to enzyme inhibition rather than to a direct action on the effector cells. At least it is well established that the muscarinic actions result from enzyme inhibition. However, neostigmine also acts directly on the end-plate region of skeletal muscle fibers. Also denervated skeletal muscle is contracted by neostigmine. Neostigmine increases gastric contractions and increases the secretion of acid juice. After bilateral gastric vagotomy, the gastric motor effects of neostigmine are greatly reduced. Neostigmine augments the motor activity of the small and large bowel; the colon is particularly stimulated. Neostigmine also stimulates the smooth muscle of the urinary tract. In addition, it causes changes in the uterus which tend to induce menstrual flow in certain cases of delayed menstruation, probably by an action on the endometrial vasculature.

USES: Neostigmine is used to relieve abdominal distention and to promote intestinal peristalsis. Inasmuch as it has fewer side actions, such as bronchospasm, miosis, hypotension, it is preferred to physostigmine. The drug is also used to relieve postoperative dysuria as well as atony of the detrusor muscle of the urinary bladder. The drug can be used to overcome the effects of autonomic ganglionic blockade as produced by tetraethylammonium. The drug is also of value in curare overdosage as well as in skeletal muscle paralysis caused by systemic magnesium intoxication.

PREPARATIONS: Neostigmine is available in the form of its methylsulfate and bromide salts. It is marketed as Neostigmine Methylsulfate, U.S.P., or Prostigmin Methylsulfate, N.N.R. It is marketed in sterile solution in ampuls, in a 1:4000, 1:2000, or 1:1000 solution. Neostigmine Bromide, U.S.P., is available in oral tablets which contain 15 mgm. of the drug.

DOSAGE AND ADMINISTRATION: The usual parenteral dose of neostigmine is 0.25 to 0.5 mgm. repeated every four hours if necessary. The average oral dose varies from 15 to 45 mgm. repeated several times daily if necessary. A 5 per cent ophthalmic solution is used for conjunctival instillation.

TOXICITY: The symptoms and therapy of neostigmine poisoning in man are similar to those of physostigmine and are described under the latter drug. It is important to note that patients with myasthenia gravis who are receiving the medication daily should be particularly watched for symptoms of toxicity. One of the earliest signs of "cholinergic crisis" in these patients is visible fasciculation of the facial muscles. Cardiovascular and gastrointestinal side effects can be minimized by taking the drug with food to slow absorption. Atropine may be necessary as adjuvant therapy and thus poses the additional problem of masking the toxic symptoms of the neostigmine.

PRECAUTIONS: In the treatment of myasthenia gravis, the time may come when the patient is refractory to the effects of neostigmine. When a patient is in difficulty because of refractoriness to neostigmine, all medication should be withdrawn and artificial respiration instituted in a respirator. Careful attention should be paid to the patency of the tracheobronchial passages and intravenous alimentation provided until susceptibility to the effects of neostigmine spontaneously returns.

THE BOOK SHELF

Anna V. Matz, R.N.,
Public Health Nursing Consultant,
New York City Department of Health

Chronic Illness in the United States. Volume II. Care of the Long-Term Patient. Commission on Chronic Illness. Published for the Commonwealth Fund by Harvard University Press, Cambridge, Massachusetts, 1956. 606 pages. Price $8.50.

This book is one of four volumes on *Chronic Illness in the United States* and is based on materials prepared for the National Conference on Care of the Long-Term Patient held in Chicago in 1954 under the auspices of the Commission on Chronic Illness. "The purposes of the conference were to identify the known requirements of the long-term patient; to examine the existing methods of providing care, and to explore new methods and enunciate new principles which should govern needed changes." The book is comprehensive in its discussion of the problems of chronic illness and covers every phase of the problem with an impressive list of conclusions and recommendations. It gives an objective analysis of the problem of chronic illness as it exists today, the complexities that it presents and the necessity for all groups concerned with care of these patients to co-ordinate their efforts.

While chronic illness and the disabilities affect all age groups, the problem increases and becomes more acute as more people reach sixty-five years of age and over. Great differences in degree of chronicity exist, so that the age of the patient and the type of institution where he receives care are obviously related to his diagnosis.

The members who participated in the conference represented leaders from many disciplines and the report reflects the thinking of a highly representative group who explored the problem from all angles.

The solution of the problem of chronic illness is so vast and so complex that agencies need to co-ordinate their efforts to provide all the services a patient needs.

The book is a blueprint for all health and welfare agencies for developing services for chronically ill patients.

The chief emphasis is on prevention and rehabilitation. Both of these are significant for future planning of medical and nursing programs in hospitals and public health agencies.

The book is excellent and should be in every library.

The Contents comprise nine chapters and an appendix: Chapter I, The Long-Term Patient; Chapter II, The Patient at Home; Chapter III, Rehabilitation at Home and in Institutions; Chapter IV, The Patient in an Institution; Chapter V, Personnel and Education; Chapter VI, Co-ordination and Integration; Chapter VII, Research for Planning and Administration; Chapter VIII, Financing; Chapter IX, Summary: Conclusions and Recommendations, National Conference on Care of the Long-Term Patient; Appendix A, Prevalence of Long-Term Disabling Illness; Appendix B, Characteristics of Special Groups of Long-Term Patients; Appendix C, Job Definition and Recommended Qualifications for Supervisor of Homemaker Service; Appendix D, The Patient in an Institution; Appendix E, Health Personnel and Education; Appendix F, Co-ordination and Integration; Appendix G, Definitions.

Today's Industrial Nurse and Her Job. A Study of the Functions of Nurses and Their Relationship to Industry by Erna Barschak, Ph.D., Associate Professor of Psychology, Miami University, Oxford, Ohio. G. P. Putnam's Sons, New York, 1956. 112 pages. Price $3.20.

Occupational health nursing, more familiarly known as industrial nursing, has had an unprecedented growth since World War II. The need for keeping employees in optimal health and working at maximal efficiency was urgent during this period. Expansion of nursing services in industry was essential. As with many fields of endeavor, the delineation of functions usually follows when the work is well established.

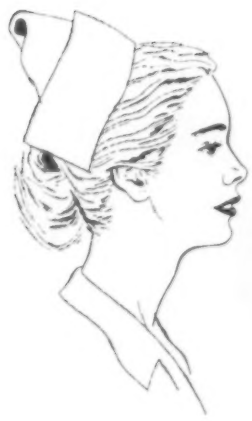
Today's Industrial Nurse and Her Job is a report of a study on the functions of the nurse in industry. It was sponsored by the American Nurses' Association. The primary objective was the collection of data on activities performed by nurses in industry, their preparation for the job, types of medical units and the expectations of management. The data compiled was derived from industrial nurses working in plants centered around the Ohio Valley. Personal interviews were held with some nurses and observations made of their work in plants. In other instances the questionnaire method was used. The activities performed varied from plant to plant. While first aid and care of the injured are primary functions, the industrial nurse is expected to assume responsibility in other areas such as safety, accident prevention, health counseling, nutrition, preventive health programs, and she must have a knowledge of community resources. Interpretation to management is also an important phase of her program.

The tables illustrating analyses of data are interesting and very significant. The present scope of activities is variable and there is a movement to delegate first aid and educational programs to lay persons who have had special training.

While this report is limited to a geographical area, it has many implications for nurses planning to enter this field of work. It also points out that the traditional functions of the industrial nurse are changing and her responsibilities are being broadened in scope. These developments are challenging, and they will require additional educational preparation.

The contents are divided into two parts: Part I, Launching the Study; Part II, Results of the Study. Conclusions and Recommendations and an Appendix follow.

The report provides for the first time an evaluation of the types of medical units in industry, the nursing activities and the variations that exist.



THE DYNAMICS OF
HUMAN RELATIONSHIPS

Let's talk it over

by **THERESA G. MULLER, R.N.**

Professor of Nursing and
Educational Director of Graduate Studies
in Psychiatric Nursing
at the University of Nebraska, Omaha, Nebraska

A reflection about my writings recently came to me: "Your articles in *Nursing World* are good. You have so much to give, but you do write for the select few in nursing and should probably face this. You are best when you use parables and then state the point theoretically."

This is not the first time for such a pronouncement to come to me. My deep concern about the earlier comments led me to give considerable thought to the matter. Slowly, I began to realize that I did not need to accept "a select few" as a limitation. Through them, intercommunication bridges could be built to reach many more on the subject of the dynamics of human behavior.

This subject is now receiving world-wide consideration as a necessity for inclusion in the basic nursing curriculum. A recent WHO report [1] indicates that: "Hitherto little formal teaching in psychology and sociology has been given to nurses, although psychology in some form or other is now being introduced into the curriculum in most countries . . . formal teaching in these subjects . . . as important to one aspect of nursing as a knowledge of the natural sciences is to another."

In this country, it has long been acknowledged that: "Many nurses who are able to meet the scientific and technical demands of their profession fail in their human relationships. This may be partly because adjustments with people are more difficult and partly because in teaching nurses, the tendency has been to pay less attention to the social and psychological aspects of nursing and more to the technical aspects." [2] Then, too, a study on psychology instruction in nursing schools indicates that: "In spite of the increasing emphasis on and interest in this part of the nursing curriculum, however, nursing schools continue to lag in both the amount and quality of instruction given in the social sciences." [3]

In the report of the foregoing study on a sampling of some 10 per cent of the schools of nursing in 1953, significant data reveals the probable reasons for the reader's comment quoted in the beginning of this article. The teaching of at least one course in psychology as a social science subject is now quite general, with an average of three courses in collegiate schools of nursing and two courses in half of all the schools participating in the study. Negative comments on the content and methodology used in teaching the courses give some clues to the lack of enthusiasm over the subject by nursing students. Some of these comments indicate that too much time was given to the anatomy and physiology of the nervous system; the psychologist teaching the course failed to make it applicable to nursing; and the course did not deal with the dynamic concepts which might help the nurse to better understand herself or patients. In consequence, graduate nurses tend to maintain an earlier resistance or indifference which is also explained by what I heard from a great teacher on the psychology of motivation: "Students come to us for bread and we give them white rats." [4] Students are interested, but our attempts to give pseudo-scientific validity to the subject on the basis of inappropriate experimental methodology leaves out much of the human values. This seems to correspond to what we so readily do in establishing fixed procedure and methodology, instead of exerting ourselves to seek the proper avenues of study on the reasons for doing as we do.

Ineffective teaching, then, might be assessed by irrelevant content for nurses and didactic formulations which fail to enliven the subject with human values. On the other hand, there tends also to be a protective concern to keep nurses from exercising their mental faculties by attempts to oversimplify psychological concepts which are too complex to be learned without a degree of painful effort. A placebo effect, expectations of the therapeutic effects of a drug, was discussed in a previous article. A placebo effect, expectations of the achievement of psychological insights as personal and professional acquisitions, might also be shared by teacher and student, administrator and personnel, nurse and patient. Thereby, support is given to another during the efforts required to overcome a void created by ignorance (teaching); the establishment of proper authority relationships (administration); and the psychological support needed by a patient

to meet a physical or psychological disability (psychological nursing).

Any nursing curriculum will reveal the relatively larger proportion of time given to the biological sciences by comparison with the social sciences. And yet our nursing profession necessarily is concerned with everything that relates to the social conditions and well-being of all of us. We find, too, that the subject matter of the social sciences comes under the headings of social psychology, cultural anthropology, sociology, political science, and economics.[5] In our nursing curriculum, history and ethics are also included. Some experimentation, such as that at Northwestern University, is now underway to bring several separate social studies into a related course. In nursing, the relationships can be established by incorporating each into the clinical content courses. Psychiatry has been designated as the bridge between the natural and the social sciences, probably because the early medical psychologists were dynamic psychiatrists. The contributions of Sigmund Freud, Alfred Adler, and Carl G. Jung are affecting the teachings in academic psychology, and changes are thereby noted in the content of educational psychology.[6]

We might consider how well informed the general public is becoming about the aspect of all good nursing which lies in a proper understanding of the behavior dynamics of any of us. Our own resistances to progress have been anticipated in two major areas: Terminology seems involved because it cannot be oversimplified as memorized definitions; and self-involvement is inevitable through the applications of the subject to oneself, thereby arousing vague feelings of discomfort over unwelcome insights. However, failure to establish adequate self-concepts leaves a sense of emptiness which tends to make us seek status among the other professions by obscuring the heart—the feeling side of our profession, in favor of the head—the intellectual side. The WHO report further indicates: "The crucial question is whether she (the nursing student) is treated the same as other students."[7]

This concern for equal status sometimes blinds us to the meaning of equality as freedom to become and be ourselves instead of blindly following a pattern relevant only to another. Equality is based on knowledge of who we are and finding our rightful place in the health professions. Mutual self-esteem is engendered by a sense of self-identity, not by losing ourselves in established stereotypes set for us by others.

We need, also, to accept the challenges of unfamiliar concepts that seem vague until the necessary effort has been made to unearth the apparently elusive meanings and significances. I can recall the teachers who put me in contact with a source which had little meaning to me at the time, but to which I was attracted many years later when an appropriate relationship could be formed with it. It would have been too bad for me had I been denied that initial orientation because it was then considered beyond my comprehension. On the other hand, a certain amount of unnecessary content in psychology needs to be eliminated from time to time. Currently available knowledge will then be selected on the basis of carefully chosen objectives which can be met within a realistic time limit. Students need to learn how to make their own application, but this is more readily facilitated by the instructor who identifies with their personal and professional life experiences. As we develop appropriate powers of discrimination, we will find that not everything from the past can be safely discarded and that current theories and concepts will need to be selected on the basis of their relevance to our projected goals.

The subject of human behavior is our everyday life and the heart of all good nursing. It is never learned once and for all time. This makes nursing and health teaching a constantly creative and re-creative experience by contacts with ever-changing human beings who vary in degrees and kinds of physical and mental abilities and disabilities. Each contact with a sick person, or the person who is interested in learning how to keep well or to re-establish himself after an illness, requires a new formulation based on the acquired knowledge and personal attributes of a nurse. It involves not only a direct nurse-patient relationship, but also the indirect effects of a therapeutic environment created by the good working relationships of the members of a health team. When something happens to a warmly receptive nursing student so that she becomes dry of emotion and spirit, we might well ask about the intellectual husks which have been given in large quantities as professional food.

As nurses, we are expected to communicate health teachings and to demonstrate treatment procedures of varying complexity to differing types of patients and nursing personnel. I have observed, then, that teachers may have excellent mastery of a subject, but still fail in their teaching of it when they are unaware of the stage of the receptivity of a learner. Others will attempt to use a method inappropriate to the subject or the readiness of the learner.

I remember well a graduate student who first resisted the efforts required in one of my classes where group work was a new experience to her. She later acknowledged the value of the method by attempting to use it in her own teaching, only to become alarmed by the situation which, then, grew beyond her control. She had failed to recognize my subtle directions which did not unnecessarily impede or force the forward movement of the group. She needed to learn that a method may be effectively used by one person, but not readily initiated successfully by another unless it arises from the assimilation of relatively similar sources of knowledge which have become meaningful enough to be used spontaneously and, thereby, carry the conviction which would otherwise be lacking.

A Chinese saying is to the effect that when the right man makes use of the wrong means, the wrong means work in the right way; but if the wrong man uses the right means, the right means work in the wrong way. A similar implication may be drawn from the teachings contained in the "Imitation of Christ"—not to imitate Christ as He lived, but to imitate the way He lived His own truth. And still another application may be made to the much-quoted golden rule—to do to others what we would like them to do to us *if* we were they. These are all indications of the necessity for increasing growth in ability to make relevant associations rather than to follow an absolute rule of thumb procedure in our human relationships. No set responses to established behavior can be mechanically maintained. In real life, each daily contact is unpredictable and has to be assessed and reacted to in ever-changing patterns which nevertheless draw upon what has gone before. Our relevant associations, then, tend to become new formulations through our creative abilities. Such acquisitions depend on our very own experiences, but the experiences of another may also be vicariously shared as sources of understanding.

It is hoped that subsequent articles will lend themselves to further insights which any one of us acquires to our advantage in personal and professional relationships.

References

1. Study Group, Brussels, November 17-26, 1955: *The Basic Nursing Curriculum in Europe*, World Health Organization, Regional Office for Europe, Palais de Nations, Geneva, p. 23.
2. National League for Nursing Education: *A Curriculum Guide for Schools of Nursing*, ed. 2, New York, NLNE, 1937, p. 192.
3. Nahm, Helen: "Psychology Instruction in Nursing Schools," *Nursing Outlook*, 2:188-190, 1954 (April).
4. Maslow, Abraham H.: "In Symposium: Course Possibilities in the Psychology of Motivation," Sixty-Fourth Annual Convention of the American Psychological Association, September 3, 1956.
5. Chase, Stuart: *The Proper Study of Mankind*, New York, Harper, 1948, pp. 48-50.
6. Snygg, Donald: "Special Review of Some Recent Texts in Educational Psychology," *Psychological Bulletin*, 52:511-517, 1955.
7. See reference 1, p. 10.

A nurse who knows the disease from experience with it in her family writes about the history, symptoms and treatment of

That Universal Ailment,

By Marguerite M. Martin, R.N.
Private Duty Nurse, Westfield, Mass.

DIABETES we have always had with us, since the beginning of time itself, or so it seems. A treatise on diabetes appeared almost 2,000 years ago. In the second century, sometime between the years 30 A. D. and 131 A. D., there lived a brilliant medical man named Aretaeus, thought to be either a native or citizen of Asia Minor, who wrote with the most amazing clarity and accurancy a paper on the ailment. After reading a condensed version of his treatise one suspects that this metabolic disorder was known, and named, even prior to the time of Aretaeus. Aretaeus had this to say of diabetes: "The name is derived from the Greek word meaning 'a siphon' and another Greek word meaning 'to go through'." The name, of course, stems from the fact that in uncontrolled or untreated diabetes there is frequently an unquenchable thirst with the drinking of excessive amounts of fluids and the passing of a large quantity of urine. *Mellitus*, also from the Latin, means "like honey."

Today this ailment, *diabetes mellitus*, is indeed well known. It is of much interest to nurses not only because of the number of cases of it they see, but because every fourth or fifth nurse has, or has had at some time, a diabetic relative. It is presently estimated that there are about 1,500,000 known diabetics in the United States with about one-half that many, or 750,000, unknown or undetected diabetics. Diabetes is a universal ailment. It is found throughout the entire world, and the people of no known country are immune to it.

Diabetes mellitus is a metabolic disorder resulting from a condition of insulin deficiency. This insulin deficiency may be either absolute or relative; it could be called a disparity between the amount of insulin that is needed by the body and the amount that is available in the body.

The exact cause (or causes) of diabetes mellitus is not as yet thoroughly understood. Research suggests that there may be several causes, both pancreatic and extrapancreatic in origin. Some theoretic etiologic factors are as follows: *Pancreatic*: Hereditary deficiency of the beta cells (the insulin-producing cells) of the pancreas; destruction or inhibition of the beta cells by chemical agents or by disease; exhaustion of the beta cells' activity because of an excessive demand for insulin; possible hyperglycemic properties of the alpha cells of the pancreas (the non-insulin-producing cells). *Extrapancreatic*: Authorities seem to feel that the secretions of the endocrine glands—pituitary, adrenal cortex, thyroid— contain substances that either are antagonistic to the actions of insulin or inactivate insulin itself. These substances are, therefore, referred to as insulin antagonists. There are several factors which seem to point to the possibility of endocrine imbalance in diabetes mellitus, but they are too numerous to list in a paper of this type. I shall mention but three of the more easily understood examples: (1) Diabetes in the juvenile usually occurs in the tall type with advanced bone development and with a slightly increased basal metabolic rate; and we must recall that the growth hormone is a product of the pituitary gland; (2) there is a high incidence of diabetes in women during the menopausal years, and among the middle-aged diabetics females greatly predominate; (3) the incidence of hyperglycemia and glycosuria among acromegalic individuals is well known.

Extensive research is being done relative to other possible causative or contributing factors, such as the function of the liver, and glycogen storage; the exact mode and site of action of insulin itself; carbohydrate intake and metabolism; and others.

The common denominator in diabetes mellitus, regardless of cause, is impairment of the metabolism of carbohydrate and, to a lesser extent, that of protein and fat. Insulin is necessary for this metabolism, but the diabetic's available insulin is not sufficient for his body's needs; therefore, either he must be supplied with animal insulin which has been purified and standardized or he must be placed on a reduced diet to conform with his own output of insulin. Diabetes is a very complex disease, but it is this complexity which makes it so interesting.

Heredity and Diabetes

Heredity plays a vital role in diabetes. Many authorities who have made an extensive study of heredity in this metabolic disorder feel that every individual who develops diabetes does so because of an inherited predisposition to the disease. It is of great interest to read that this hereditary predisposition to diabetes was suspected in India as early as the seventh century.

Obesity and Diabetes

A study by the Metropolitan Life In-

Diabetes

surance Company showed that 78.5 per cent of male adults and 83.3 per cent of female adults were overweight at onset. Other studies have substantiated these figures. Diabetes seems to develop in those obese individuals who have an inherited predisposition to the disease. The diabetic child is an interesting exception to this rule; only about 5 per cent of children are overweight at onset of diabetes.

How Diabetes is Diagnosed

The finding of sugar in the urine is not conclusive proof of the presence of diabetes mellitus. The urine of individuals under nervous tension sometimes contains small amounts of sugar. Glucose has been found in the urine of patients with head injuries or cerebral pathology. These are transitory conditions, and there are others. In cases of renal glycosuria the individual will show sugar simply because he "spills" sugar when his blood sugar is normal; in other words he has a lowered renal threshold for sugar. There is also a rare case in which the sugar excreted is not glucose, but one of the less common types of sugar; this is called non-diabetic glycosuria. Any individual showing positive tests for sugar in the urine should have blood sugar examinations made. When necessary, glucose tolerance tests are done on the questionable cases.

Signs and Symptoms

1. Diabetes In The Child

Any individual developing diabetes at the age of 15 or under is considered to be a juvenile diabetic and is so classified for as long as he or she may live. The age groups in children which seem most susceptible to diabetes are 3, 6, and 12. Authorities have stated that a diabetic relative will eventually be found in 60 per cent of cases of juvenile diabetes. Diabetes in the child is more severe and the onset is more acute; it has been estimated that in about 14 per cent of cases the onset is with acidosis and coma. However, in the majority of cases the most common symptoms are: excessive thirst, hunger, and urination; loss of weight; drowsiness; irritability; dehydration; positive urine tests for sugar and usually acetone; and elevated blood sugar.

2. Diabetes In The Adult

The majority of cases of diabetes in the adult occur between ages 45 and 65. Females predominate among the adult diabetics, but this does not hold true for the juveniles.

Although the first symptoms of diabetes in the adult may be those of coma, this is not usually the case because diabetes in the adult is more indefinite. Sometimes its presence may be detected by a routine physical examination, as when applying for life insurance. Occasionally it is brought to light when a patient is admitted to a hospital for some other condition. It is frequently not detected in the elderly until gangrene of a foot develops. But more often there are symptoms as follows: excessive thirst; passing of large amounts of urine; excessive hunger (occasionally loss of appetite); loss of weight; drowsiness; impaired vision; itching and redness of the skin, particularly of the genitals; carbuncles or boils; positive urine tests for sugar, and sometimes for acetone; and elevated blood sugar.

Treatment of Diabetes

There are differences of medical opinion on some aspects of therapy. However, it may be said that the successful treatment of diabetes mellitus requires a four point program: 1. Diet. 2. Insulin. 3. Exercise. 4. Education of the Patient and His Family.

1. The Diet

The diet is considered by most specialists to be the most important aspect of treatment. The diabetic diet is a good diet; it is the perfect diet so far as maintenance of health is concerned; today it is a generous diet.

The caloric value of any diet is an individual matter and depends on age, sex, size, and whether the body is at rest or undergoing strenuous, moderate, or light activity.

There is a lowered tolerance for carbohydrate in diabetes and the carbohydrate intake is, therefore, less than for the non-diabetic individual. The average adult diabetic diet today allows a carbohydrate intake of between 150 and 200 grams; this amount seems to be adequate for maintenance of health, energy, and weight for most diabetic individuals. Some physicians prescribe a higher carbohydrate intake than others. In the child's diet, approximately 40 per cent of the caloric value is given in carbohydrate food.

The protein requirement is an individual matter and depends upon age, size, and activity. The amount of protein in the diabetic diet is essentially the same as for the non-diabetic individual; it ranges from 60 to 100 grams for the average adult.

(Continued on next page)

(Continued from page 25)

Fat is used to make up the remaining caloric requirements of the diet. The number of grams of fat in the present-day diet is much less than it was in the pre-insulin era; the average diabetic adult receives between 60 and 120 grams.

The diabetic patient, and at least one of his relatives, must be taught the difference between carbohydrate, protein, and fat foods; how to substitute one food for another of like category; how to prepare attractive dishes by the use of exchanges; and the importance of faithfulness to the diet.

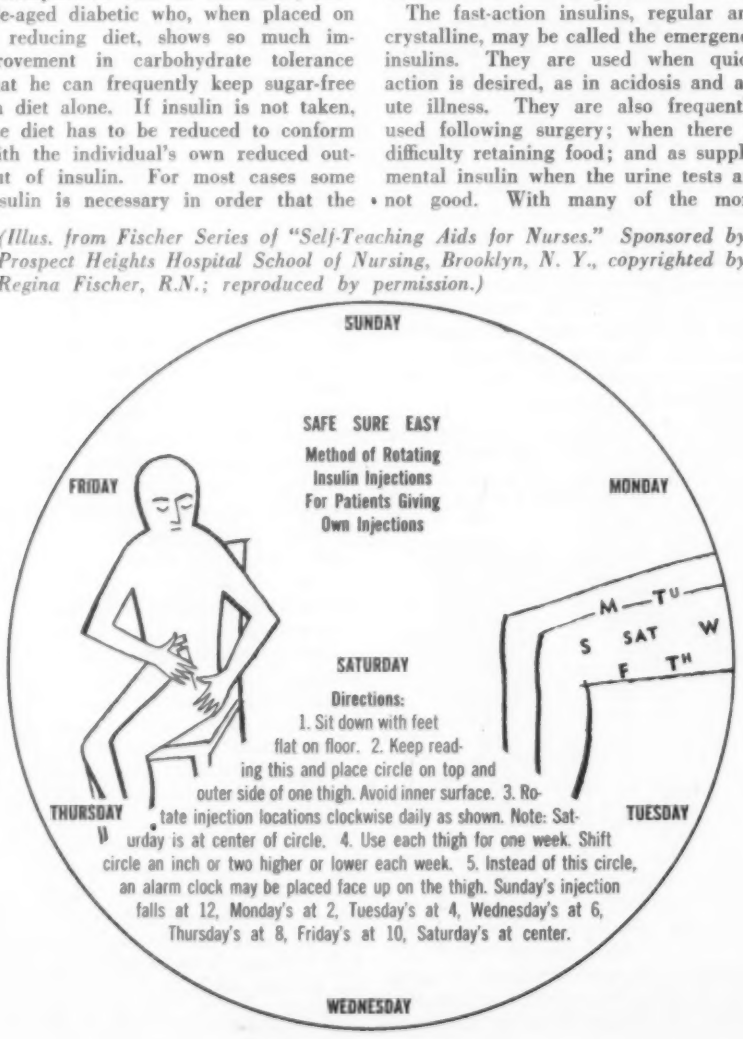
2. Insulin

The newly diagnosed diabetic is usually given daily injections of some type of insulin. There are some cases, however, which may be controlled by diet alone. Examples are: (1) the uncomplicated case in the elderly patient who, because of the fact that he is living a somewhat inactive life, has a low caloric requirement; and (2) the uncomplicated case in the obese, middle-aged diabetic who, when placed on a reducing diet, shows so much improvement in carbohydrate tolerance that he can frequently keep sugar-free on diet alone. If insulin is not taken, the diet has to be reduced to conform with the individual's own reduced output of insulin. For most cases some insulin is necessary in order that the patient may have a diet which meets health requirements.

Insulin may be divided into two classes: unmodified insulin, and modified insulin. Modified insulin is insulin to which certain substances, such as protamine and zinc, have been added to slow down or prolong the action. Because of this prolonged action, the diabetic is able to have the benefit of insulin even during his sleeping hours; he does not need repeated injections as he would with the unmodified insulins. The unmodified insulins are: regular, and crystalline. The modified insulins are: globin, protamine zinc, NPH (neutral-protamine-Hagedorn), and lente. A second classification of insulin, which arises from the first, is based upon rapidity and duration of action, and divides insulin into three groups as follows: fast-action insulin, intermediate-action insulin, and slow-action insulin. The fast-action insulins are: regular, and crystalline. The intermediate-action insulins are: globin, NPH, and lente. The slow-action insulin is protamine zinc.

The fast-action insulins, regular and crystalline, may be called the emergency insulins. They are used when quick action is desired, as in acidosis and acute illness. They are also frequently used following surgery; when there is difficulty retaining food; and as supplemental insulin when the urine tests are not good. With many of the more severe diabetics it has been found necessary to give quick-action insulin, as well as delayed-action insulin, in order to obtain good control without reactions. The intermediate-action insulins are the insulins of choice for the day-to-day treatment of diabetes. Lente insulin, the latest addition to the insulin family, is an intermediate insulin free of foreign protein; it is of some value in those cases which have shown allergy to insulin. The slow-action protamine zinc has been replaced in many cases by NPH, but patients who did well with this slower insulin have been kept on it.

(Illus. from Fischer Series of "Self-Teaching Aids for Nurses." Sponsored by Prospect Heights Hospital School of Nursing, Brooklyn, N. Y., copyrighted by Regina Fischer, R.N.; reproduced by permission.)


SUNDAY
SAFE SURE EASY
Method of Rotating
Insulin Injections
For Patients Giving
Own Injections
FRIDAY
MONDAY
M TU
S SAT W
F TH
SATURDAY
Directions:
1. Sit down with feet flat on floor. 2. Keep reading this and place circle on top and outer side of one thigh. Avoid inner surface. 3. Rotate injection locations clockwise daily as shown. Note: Saturday is at center of circle. 4. Use each thigh for one week. Shift circle an inch or two higher or lower each week. 5. Instead of this circle, an alarm clock may be placed face up on the thigh. Sunday's injection falls at 12, Monday's at 2, Tuesday's at 4, Wednesday's at 6, Thursday's at 8, Friday's at 10, Saturday's at center.
THURSDAY
TUESDAY
WEDNESDAY

Oral Antidiabetic Sulfonamide Compounds

At the time of this writing, reports have appeared in the newspapers of an oral "substitute for insulin." As is always the case when reports of an oral drug to be used in the treatment of diabetes appear, this latest report raised the hopes of many diabetic individuals.

Numerous attempts have been made in the past to find some means by which insulin itself could be given orally. All were unsuccessful because of the fact that insulin is inactivated by the enzymes of the digestive tract. All attempts to find some means to prevent this inactivation have so far failed. Several previous attempts have also been made to find an oral substitute for insulin. These, too, all met with failure for two reasons: (1) the drug was not sufficiently beneficial; (2) there were toxic side effects.

Recently new drugs were produced in Germany which are said to be beneficial to some adult diabetics, and which can be taken by mouth. These new drugs are not a new insulin; they are not insulin in any form. They are sulfa-related compounds known to scientists as Carbutamide (BZ55) and Tolbutamide (U2043). These compounds are said to have the ability to lower the blood sugar and reduce urine sugar. Dr. Henry Ricketts, then president of the American Diabetes Association, in a recent article in the *ADA Forecast*, stated that: "All known facts point to this conclusion: These compounds are in no way substitutes for insulin, nor do they imitate the action of insulin." Dr. Ricketts further states: "The observation of many cases in Germany, the United States, and Canada points to the fact that they are effective in reducing high blood sugar and glycosuria in adult diabetics who are not of the juvenile or brittle variety. In general, patients in the older age group, with diabetes of relatively short duration, seem to respond best. This is generally the type of patient whose diabetes is easiest to control by diet." Dr. Ricketts concludes: "Since the well-being, comfort, and convenience of the patient are the only objectives in chang-

ing treatment, all concerned should await further evidence concerning these compounds, and particularly, the hazards of their use."

3. Exercise

Exercise is a valuable aspect of diabetic treatment. It is important for the diabetic to have a certain amount of exercise each day; this is true even for the infirm or elderly diabetic. Exercise lowers the blood sugar. The daily exercise, and the daily livelihood, however, must not vary too much from day to day lest an insulin reaction occur. Any additional exercise or extra work must be preceded by the taking of additional carbohydrate. Strenuous exercise such as a long walk, tennis, swimming, etc., should be engaged in during a safety zone when the blood sugar is apt to be high, as it would be an hour or so after a meal.

4. Education of the Patient and the Family

Education of the diabetic, and those with whom he lives, in all matters pertaining to his ailment is of such great importance that unless this is carried out all other aspects of treatment will fail. The patient and at least one relative must be taught the following: what diabetes is; insulin, its administration, and how to avoid reactions; the diet and how it may be varied; how to test the urine; how to keep a report for the physician; the care of the feet; diabetic complications, and how to avoid them; and the care of the diabetic during an acute illness at home. The patient should have instilled in him a cheerful, optimistic outlook regarding diabetes before he is placed on his own.

There are summer camps for diabetic children in many sections of the United States. Diabetic children may go to these camps and engage in the outdoor activities that are dear to every child's heart. They meet other diabetic youngsters and thereby learn that they are not alone in their affliction; this serves as a tremendous morale booster. While at camp, they are under careful medical supervision. No child is refused admittance because of inability to pay. Information can be obtained from the Diabetes Association of any state or from any physician interested in diabetes.

Hypoglycemic Shock

Every nurse should be able to quickly recognize and efficiently treat hypoglycemic shock. This condition, better known as "insulin reaction," results from the change of blood sugar from a normal, or above-normal, level to a sub-normal one. This may happen quite quickly, or it may happen gradually. The normal blood sugar figure is between 80 and 120 mgms. per 100 c.c. of blood. Symptoms of a reaction seldom appear until the blood sugar has dropped to below 60 mgms. An occasional insulin reaction can be expected with any diabetic who takes insulin, but frequent and severe reactions are to be avoided.

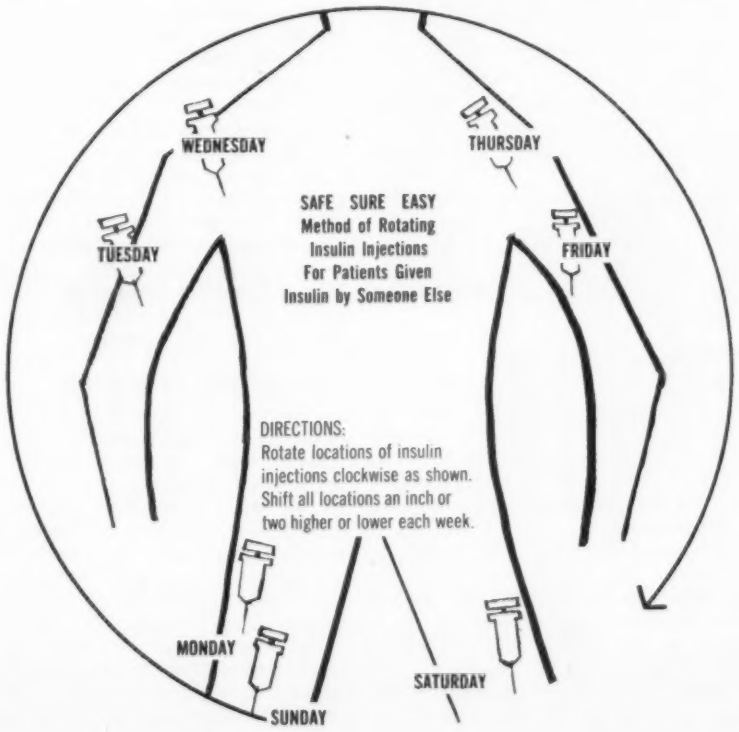
The *direct causes* of reactions are: 1) too much insulin, 2) too little food, and 3) exercise poorly planned.

Signs and Symptoms—The signs and symptoms of hypoglycemic shock vary somewhat according to the type of insulin being used, the individual, and the speed with which the reaction is detected. One or more of the following symptoms are usually present: hunger, feeling of cold, tremor, exhaustion, irritability, impaired vision, mental confusion, negative inclination, pallor, sweating, and sometimes headache and nausea. If the reaction is allowed to progress untreated, more serious symptoms may develop, such as increasing stupor and drowsiness, lack of muscular coordination, and finally unconsciousness with or without convulsions. The word "coma" should not be used in connection with an insulin reaction; it should be reserved for the terminal stage of diabetic acidosis. Most reactions are detected early, and only a few of the milder symptoms are seen.

Treatment: The best treatment of an insulin reaction is its early detection so that only a minimum of carbohydrate will be needed. At the onset any quick-acting carbohydrate may be given, such as fruit or fruit juice, any form of quickly eaten candy, ice cream, any sweetened beverage, such as gingerale, warm tea or coffee containing sugar. If the patient is markedly stuporous and cooperation is a problem, adrenalin may be administered subcutaneously. The administration of adrenalin results in the liberation of glycogen stored in the liver. The unconscious patient will need intravenous administration of dextrose, and no attempt should be made to give such a patient fluids or granulated sugar until consciousness has been restored. Most reactions can be avoided by periodic check-ups, including blood sugar tests; by adherence to diet; by daily examination of the urine; and by the use of common sense in work and exercise.

Care of the Feet

It is impossible in any article on diabetes to cover every phase of diabetic care. The care of the feet is of such tremendous importance, however, that it cannot be omitted. It would be difficult to find a nurse who has not cared for a diabetic patient with gangrene of a foot; I wonder if nurses realize how many of those cases could have been prevented had the patient been well instructed in all phases of foot care. There is with diabetes a tendency to premature hardening of the arteries. There is, however, a much higher percentage of gangrene in the diabetic foot with arteriosclerosis than in the non-diabetic foot with arteriosclerosis because of the lowered resistance to infection in some diabetics, and because of the fact that there may be some anaesthesia present



in the diabetic foot so that tenderness may not be noticed. The following rules for the care of the diabetic foot, if carried out, will prevent many cases of gangrene:

1. Keep feet clean. Wash daily with warm, *not hot*, water and soap. Apply lanoline to any callused areas of skin.
2. Perform foot exercises faithfully three times a day if your physician has ordered them.
3. Wear properly-fitted shoes; wear new shoes for only brief periods of time, the first few days.
4. Do not go barefoot. Avoid "athlete's foot"; if this infection develops, treat it promptly and vigorously.
5. *Never* apply a hot water bottle or electric heating pad to the feet. If necessary, wear socks to bed.
6. *Never* soak feet in hot water or in a strong antiseptic solution. Never apply strong antiseptics, such as iodine, to injured areas on feet.
7. ST37, or alcohol, with sterile dressing, may be applied for minor injuries. Do not attempt to treat a serious injury or infection; see a physician.
8. Cut toenails only in a good light, when feet are clean, and cut straight across.
9. It is considered best for the diabetic not to treat corns or calluses himself; he should see a chiropodist.
10. Do not wear circular garters or sit with knees crossed.
11. Have a relative examine your feet once a week.
12. *Do Not Walk On A Sore Toe Or Foot.*

Any form of heat to an infected or injured diabetic foot may hasten gangrene because of the deficient blood supply; the application of heat increases the rate of metabolism and of oxygen need.

Diabetes and Pregnancy

Now that the female diabetic child usually reaches adult life, pregnancy and survival of the infant has become a more frequent and important problem. Prior to insulin, the diabetic child did not live long enough to marry and become pregnant.

Pregnancy and delivery of the diabetic requires a close working-together of the clinician, the obstetrician, and (at the time of delivery) the pediatrician. Pregnancy in the diabetic requires meticulous care because the intricate body chemistry is so involved in diabetes, because there is the possibility of premature calcification of the pelvic vessels in the long-term diabetic, and finally because there may be a sex hormonal imbalance in many diabetics during pregnancy. However, it has been proved that it is entirely possible for the well-controlled diabetic woman to have a family, and there are cases on record of diabetic mothers of three and four healthy children. If the pregnancy occurs in a woman whose diabetes is of reasonably short duration, and if she is free of complications, pregnancy need not be too big a problem. When the diabetes is of long standing and is complicated by retinal pathology, vascular lesions, or nephritis, the pregnancy must be handled with the greatest of skill. Prenatal care carried out by leading authorities in the field of diabetes usually consists of a diet liberal in carbohydrate and high in protein, with vitamin supplements; salt restriction, and ammonium chloride, for the prevention of edema and hydramnios; and hormonal replacement therapy with many cases. Early hospitalization with early delivery is recommended for many cases, with about 35 per cent delivering by pelvic route and about 65 per cent Caesarian section. The insulin requirement often doubles or trebles during pregnancy.

There is no problem today so far as performing needed surgery upon the diabetic is concerned. The diabetic patient and his family need not be unduly concerned when surgery is recommended. With wise use of insulin and careful attention to the diabetic state, the diabetic individual can come through surgery just about as well as his non-diabetic brother. The modern hospital laboratory is on a twenty-four hours basis, and is well equipped to carry out any test needed either preceding or following surgery. The sulfa drugs and the antibiotics have been a great boon to the diabetic. Intravenous feeding of sugar-containing fluids is carried out when the patient is unable to take nourishment orally. Anaesthesia is no problem because the diabetic today—all other factors being equal—can tolerate any anaesthesia.

Complications of Diabetes

Prior to 1922, the most common complication of diabetes was the dreaded diabetic coma. In the pre-insulin era at least half of all diabetics succumbed to it. Another common complication at that time, particularly among the underprivileged and the juveniles, was pulmonary tuberculosis. Diabetics in those days were not dying of vascular lesions simply because they were not living long enough for them to be the serious problem they are today. The picture in 1956 is an entirely different one. The complications we see today are premature arteriosclerosis; cardiovascular-renal disease; retinal pathology; infections such as abscesses, carbuncles, and osteomyelitis; gangrene; and the diabetic neuropathies. A clear picture of diabetic mortality at the present time is given by the Joslin Group who state that 70 per cent of the deaths in diabetes today can be attributed to arteriosclerosis in its various locations: the heart, the brain, the kidneys, and the blood vessels. In the juvenile diabetic, renal disease is now the most common cause of death.

To add the note of optimism that the present picture deserves, I should like to state that statistics show that the diabetic today is living three-quarters of the normal life expectancy; diabetic children are attaining adult life; and patients who have had diabetes for twenty-five or more years are not at all uncommon.

Diabetes and the Future

A tremendous amount of research is being done in the field of diabetes. It is difficult to tell just what the future will bring, but it certainly looks promising. That great benefactor of the diabetic, Dr. Hans Christian Hagedorn of Denmark, is still active and there is no way of telling just how much more he will do to improve insulin. The co-discoverer of insulin, Dr. Charles Best of Toronto, is still doing considerable research in diabetes. Groups of research workers in all parts of the world are investigating this complex disorder. The aim will be, of course, to find a cure, for diabetes, but failing that, a means of prevention. Improvement in methods of treatment is a vital aim.

The avoidance, or at least the postponement, of the degenerative vascular lesions is of great concern to experts in the field of diabetes. Early diagnosis is of great importance; we already have detection drives on a national scale. The avoidance of obesity will continue to be high on the educational program. There will, no doubt, be more diabetic hospital teaching clinics similar to the one recently constructed in Boston, Massachusetts. The dedication of this clinic will be a historic event from a medical standpoint, and I think that everyone who is privileged to know Dr. Elliott P. Joslin will rejoice to realize that the completion of this unique clinic, which has been his dream for years, has come about during his lifetime. The recipient of many well-deserved honors, Dr. Joslin is beloved and respected by diabetics the world over.

References

1. *Treatment of Diabetes Mellitus*: Joslin, Root, White, and Marble.
2. *ADA Forecast*, official publication of the American Diabetes Association.

NURSING WORLD Reports . . .

(Continued from page 6)

or public health nurse, or a nurse in a children's hospital, is desirable. Unlike other members of summer camp staffs, RN's often cannot commit themselves for the full eight weeks of the camp season. A number of Girl Scout councils have met this problem by scheduling the Health Supervisor's job on the basis of two, four or six-week assignments, if necessary, so that more than one Health Supervisor may serve in the course of the camp season. Salaries are determined by the individual's experience, qualifications and training. Depending on the length of the camping season and the location of the camp, such incidentals as laundry and travel expenses may be included. A basic pre-camp training session of about five days' duration is provided for all staff members. Registered nurses interested in a Girl Scout job near home should get in touch with the nearest Girl Scout council. Those wishing to be referred to other locations should write directly to Miss Fanchon Hamilton, Recruitment and Referral Adviser at Girl Scout National Headquarters, 155 East 44th Street, New York 17, N. Y.

NLN Convention: The National League For Nursing will hold its biennial meeting on May 6-10, 1957, in Chicago. The theme of the convention is "Good Nursing Service, Sound Nursing Education, and Active Citizen Participation." More than 7,000 nurses, students, representatives of allied disciplines and interested lay citizens are expected to attend the meetings.

Congress of Nurses: A Congress for Nurses, covering all fields of nursing, and led by Federal, State, and city health officials, hospital supervisors, teachers, and representatives of various leading nurse and health organizations, will be held at the Long Island Division of St. John's University, Jamaica (Queens County) on Thursday, March 21, 1957. It will be sponsored jointly by the Nursing Education Alumni of the University and the Department of Nursing of the School of Education, with Rev. Frederick J. Easterly, C.M., Dean, serving as Chairman. Timed to meet professional schedules, the Congress will open with a general assembly at 4:00 P.M., followed at 5:00 P.M., by a five-panel program treating of such subjects as "Changing Patterns in School Health Services," "The Nurse and the Law," "A Look Into the Future of Nursing Education," "Integration of the Principles of Mental Health in the Curriculum," and "The Nurse as a Practitioner." Outstanding authorities in their respective fields will serve as panelists.

(Continued on page 30)

Correction: Pauline Gratz, author of the article "Good Teachers Are Made—Not Born" in our January 1957 issue, is not, as we said on pages 5 and 7, an R.N. She is currently a Science Instructor at the New Rochelle Hospital School of Nursing, New Rochelle, New York.

MOVING?

When changing your address please notify the Fulfillment Manager, NURSING WORLD, 41 East 42nd Street, New York 17, New York. Use notice Form 22-S which you may secure from your Postmaster. Remove your label from the cover and paste it in the space provided on the form. Give both your old and your new address.

An Ideal Antacid-Laxative

INIMITABLE...

Quality and demonstrated dependability for over three-quarters of a century . . . consistently and universally accepted above all others...the prestige of Phillips' Milk of Magnesia may be measured by the overwhelming majority of those who recommend it...the medical profession.

PREPARED ONLY BY THE CHAS. H. PHILLIPS CO. DIVISION OF STERLING DRUG INC., 1450 BROADWAY, N.Y. 18, N.Y.

CLASSIFIED ADVERTISEMENT

CLASSIFIED ADVERTISING

15 cents per word, minimum charge $6.00. Capitals, or bold face, $2 per line extra. Lines of white space $2 per line extra. Telephone orders not accepted. No agency commission allowed. Closing date for advertisements: 15th of 2nd month preceding publication date. Advertisements which arrive too late for insertion in one issue will automatically go into the next issue unless accompanied by instructions to the contrary. The publishers reserve the right to refuse or withdraw any advertising, at their discretion, without advance notice. Send ads with remittance to: Classified Ads, Nursing World, 41 East 42nd St., New York 17, N. Y.

OBSTETRICAL SUPERVISOR. Opening June 1, 1957. New 300-bed hospital, located in Northern New Jersey; 30 minutes from New York City. Attractive personnel policies. Write stating education and experience. Box N 13, Nursing World, 41 E. 42 St., New York 17, N. Y.

WANTED: Assistant to the Director, newly established and expanding School of Practical Nursing. Small classes, some teaching responsibility, B. S. degree required. Salary $360.00 to $420.00 per month, maintenance available $38.00 per month. Apply: Director, Practical Nurse School, Drawer No. 100, Dixon, Ill.

WANTED: Clinical Instructor, expanding Practical Nurse School. Some opportunity for classroom teaching. Starting salary depends on qualifications; range $360.00 to $420.00 per month. Maintenance available at $38.00 per month. Apply Director, Practical Nurse School, Drawer No. 100, Dixon, Illinois.

INSTRUCTOR—School of Practical Nursing. 165-bed General Hospital. College town in central Pennsylvania. Program approved by Pennsylvania State Board of Nurse Examiners. Classes admitted twice yearly. Salary open. Write: Director of Nursing, Carlisle Hospital, Carlisle, Pa.

STAFF NURSES—General Duty in operating rooms and medical-surgical units. 165-bed General Hospital. College town in central Pennsylvania. Opportunity for part-time study. In-service program. Liberal personnel policies. Salary depends on ability and qualifications. Write: Director of Nursing, Carlisle Hospital, Carlisle, Pa.

BEDSIDE NURSES: 100-bed medical research services of two medical schools—$3500-$4580. Choice of tours with P. M.-N. D. diff. Excellent personnel policies; maintenance $17.14 mo. Convenient transportation, near colleges. Write Supt. of Nurses, Goldwater Memorial Hospital, New York 17, New York.

NEW YORK UNIVERSITY MEDICAL CENTER: Offers graduate nurses full-time work in all services at its University Hospital (formerly N. Y. Post-Graduate Hospital) at a starting salary of $290 a month. Planned increments starting after 6 months of service, $40 and $20 premiums for eve. and night duty, 4 weeks vacation, paid holidays, liberal personnel benefits including a Free Tuition Plan at NYU which gives excellent opportunities to earn your degree or take special advanced courses while you are earning your living. Apply Personnel Dept., 550 First Ave., New York 16, N. Y.

American Nurses' Association
PROFESSIONAL COUNSELING AND PLACEMENT SERVICE

Use PC&PS: Job Opportunities, Permanent Record, Counseling Service

Write to your State Nurses' Association or
ANA PC&PS, 37 So. Wabash Ave. Chicago 3, Ill.

REGISTERED STAFF NURSES
NEVER A DULL MOMENT FOR THE GRADUATE NURSES who decide they would like to join us at the University of Texas Medical Branch Hospitals. We work a 40-hour week in our air-conditioned hospitals, leaving 128 hours to enjoy the beach and nearby resorts. Galveston boasts an average temperature in the low seventies which means that swimming, fishing, horseback riding and sailing can be enjoyed the year round.

We have positions available in the clinical area of your choice. Our staff nurses' monthly salaries begin at $264 for rotation and $277 for extended evenings or nights. Uniforms are laundered free. We have liberal personnel policies and opportunities for advancement. Comfortable air-conditioned residences including maid service are available at moderate cost. There are excellent opportunities for advanced study leading to both B.S. and M.S. degrees.

Write for further information to the: Director of Nursing Service, University of Texas Med. Branch Hospitals, Galveston, Texas.

REGISTERED NURSES: 555-bed hospital (non-sectarian), with all clinical services. Has Nursing School diploma program. Beginning salary $275.00 per month, plus differential for evening and night work. Hospital is in ideal year-round vacation land, located on tip of Lake Superior, air-conditioned summer temperature and hay-fever haven. For further information or applications, please write to Director of Nursing Service, St. Luke's Hospital, Duluth, Minnesota.

WORK OVERSEAS OR RETIRE IN MEXICO: Many companies need qualified nurses in their overseas hospitals. Our booklet tells how and where to apply. Want to retire in luxury on a very small income? Our second booklet shows you how and where in beautiful Mexico. Total price both booklets only $1. Limited offer. Satisfaction guaranteed. Publisher Rathe, Box 26131, Los Angeles 26, California.

NURSES EMBLEMS
Proclaim your profession with our n
heavily gold plated die c
metal self - adhering e
blems. Sticks instantly a
securely to any flat surfa
Put them on your car, lu
gage, den, etc. 2¼" diamet
Money Back Guarantee
$1.50 each sent postpaid
CAVALIER
1164 6th Ave., N. Y. 36, N.
Professional & Lodge Emblems Availab

NURSING SERVICE DIRECTOR ASSISTANT
Attractive position for qualified applic
Northern New Jersey. Write stating ed
tion and experience. Box N 14, c/o Nurs
World, 41 E. 42nd St., New York City.

SUPERVISOR—CENTRAL SUPPLY
New 300-bed hospital opening this Spring.
cellent opportunity for qualified, experie
supervisor. Supervisor will organize and
up policies and procedures. Write Box N
c/o Nursing World, 41 E. 42nd St., New Y
City.

WANTED: General Duty Nurses for 7-3
3-11 shifts, salary of $220.00 per month w
complete maintenance. Also opening for
Supervisor at salary of $320.00 per month w
partial maintenance. All positions carry
5½-day work week with paid holidays and va
tions. Contact Administrator, Howard Co
Hospital Foundation, Big Spring, Texas.

GRADUATE NURSES: For general duty,
bed general hospital, new, air-conditioned, w
equipped, $275-$325 per month starting sa
plus meals and laundry for uniforms. Tra
portation paid to Dumas. Write, call, w
collect. Administrator, Memorial Hospi
Dumas, Texas.

EDUCATIONAL DIRECTOR—Hospital S
of Nursing in new 300-bed hospital. 30 mi.
from New York City. Write stating educa
and experience. Box N 16, c/o Nursing Wo
41 E. 42nd St., New York City.

**SUPERVISORY AND GENERAL DU
NURSES.** General hospital, suburb of Wa
ington, D. C. New air-conditioned w
Nearby universities for continued educati
Suburban Hospital, Bethesda, Md.

OPERATING ROOM SUPERVISOR. C
plete new surgical suite. 200-bed hospital.
ary open. Suburban Hospital, Bethesda,

**"YOUR POCKET PAL." THE KENMO
NURSE'S KIT** with sealed edge. Holds y
pen, pencil, scissors and comb, also key sec
and purse. In white box calf. Save unifor
laundry bills and time. **THE PERFECT GI**
$1.00 postpaid: $7.50 per doz. Order d
from 8718 Ashcroft Ave., Hollywood 48, Cal

NURSING WORLD Reports . . .

(Continued from page 29)

Capping Service Abandoned: The capping ceremony for student nurses, in effect for twenty-five years, has been abandoned at the Philadelphia General Hospital. This action was taken at the suggestion of Margaret M. Jackson, Director of Nurses and Nursing Service, as a means of placing greater emphasis on the full three-year educational program rather than the six-month probationary period. The nursing curriculum at the Philadelphia General Hospital is continuous throughout the three-year program with no special emphasis on the first six months, Miss Jackson explained.

Army Nurse Corps Officers Win Awards: Major Doris W. Viedt and Captain Altha H. Hedger, both of the Army Nurse Corps, were presented Certificates of Achievement for outstanding service to the Armed Forces of the United States by the Madigan Army Hospital at the close of their respective tours of duty there, in October 1956.

In This Issue

(Continued from page 5)

is the director of the program. Mr. Mannino is a graduate of
Pennsylvania Hospital School of Nursing for Men. He recei
his B.S. and M.S. degrees in education at the University of Pe
sylvania. Mr. Mannino's major field is Counseling and Guida

The ailment *Diabetes Mellitus*, according to Mrs. Marguerite
Martin, R.N., "is of much interest to nurses not only becaus
the number of cases they see of it, but because every fourth
fifth nurse has, or has had at some time, a diabetic relati
Because Mrs. Martin, herself, has for twenty years taken car
a member of her family who has the disease, she was motivated
write the article which appears on page 24. Mrs. Martin i
graduate of St. Joseph's Hospital School of Nursing, Willima
Conn., and is at present doing private duty nursing. She has
postgraduate courses in the following: clinical laboratory techni
at Yale University and at the New Haven Hospital, blood ch
istry at St. Francis Hospital in Hartford, Conn., and in Diab
at the Joslin Clinic and the New England Deaconess Hospital
Boston, Mass.